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Reference Guides

That Should be Known and
How to Use Them

no. 13

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*This Pamphlet Pertains to
Webster's New International Dictionary*

THIRD EDITION

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The pamphlet on *Webster's New International Dictionary* may be purchased at the rate of 10 cents per copy; in lots of fifty, for 8 cents each plus carriage, from the Publishers of the Dictionary.

G. & C. MERRIAM COMPANY,

SPRINGFIELD, MASS.

Other pamphlets, as listed in the *Foreword*, on the opposite page, may be purchased at the rate of 25 cents per copy; in lots of fifty, for 17½ cents each plus carriage, from

THE WILLARD COMPANY,

601 West Fort Street,

DETROIT, MICH.

NOTE: Arrangements have been made between The G. & C. Merriam Co. and the Willard Co. by means of which the lesson on Webster's New International dictionary can be sold much more cheaply than can the lessons on miscellaneous reference books. It is hoped that this plan will make it possible for schools to adopt at once the dictionary pamphlet, as a required text book for the first term of high school English work, and the other pamphlets later.

29/1931 E.J.S.

Foreword

This pamphlet is one of a series on the use of reference books. The complete series constitutes a third edition of *Reference guides that should be known and how to use them*, which appeared first in 1916 in bound form as a text book for high and normal schools.

The third edition has revised and condensed the eleven pamphlets of the second edition into eight pamphlets, one for each of the eight high school courses in English, as listed below. The revised text can also be adapted to meet the needs of college freshmen who have had no special training in the use of reference tools. No important change has been made in the subject matter. Each pamphlet contains sixteen pages; even though the subject may be new, it should be mastered in a little more than an hour's time.

List of Pamphlets in the Series

Graded to correspond with High School English Courses

English 1—Webster's New International Dictionary.

English 2—Parts of a book: Concordances.

English 3—Encyclopaedias.

English 4—Library classification and card catalog.

English 5—Yearbooks.

English 6—Indexes to periodical literature.

English 7—Commercial guides.

English 8—Government publications: city, state, and federal.

It might be well to give the entire series to high school seniors, if the work has not been organized grade by grade. College freshmen could do the work independently; so also could anyone needing reference tools; club workers, for example. A survey was recently made by the faculty of one of our state universities, concerning causes for failure in the freshman college year: four reasons were given, one of which reads as follows: "Students should be trained to use ordinary means of securing information, such as: *the table of contents, the index, the dictionary, the encyclopaedia, the card catalog, the Readers' guide to periodical literature, the newspaper, the informational magazine.*" It is therefore evident that a need exists for some plan of teaching the use of reference material which can be fitted into the crowded high school and college courses without undue intrusion or expense.

These simple lessons have been prepared in the hope that they will aid students to become familiar with standard reference material. The inclusion of specimen pages from the reference books studied makes it possible for each student to follow all illustrative examples without making a trip to a library and waiting to have access to the complete reference work. No library will furnish a sufficient number of copies of expensive reference books for this purpose; neither can a library afford to have pages in expensive reference books as badly worn and marked as this work would cause them to become.

Much dependence is placed upon the co-operation of the English departments when the work is given in high schools; each teacher of English being expected to devote about three recitation periods to the pamphlets which are graded to correspond with the respective English courses taught. In college, it would seem to be a very simple matter for the rhetoric department to plan to have their freshmen read these pamphlets early in the term, either as assigned class work, or independently, time being allowed, so that the work could be done without overpressure. Satisfactory results might be assured if students understood that at the first rhetoric examination a few leading questions selected from those on the inside of the back covers of the pamphlets would be asked.

*The following paragraphs are taken from the
Foreword of the First Edition*

Possibly the best way of presenting the points which it is hoped this series of lessons may emphasize is to quote directly from the preface of a Bulletin on "Library instruction in universities, colleges and normal schools," from the United States Bureau of Education, 1914—No. 34.

Many educators of note, as well as college and university librarians, have emphasized the urgent necessity of instruction and training in "book-using skill." . . .

The place of the library in the work of all departments is one of increasing importance. The library is a resource or reservoir from which the student should draw constantly for information and inspiration. . . . Every month of delay in instructing him in the meaning and use of the library lessens the efficiency of his course.

. . . Every new student should be required to take some course in which is given definite practical instruction in the handling of library tools. . . . Such a course, moreover, should not only be required, but it should constitute a definite part of the work required for a degree.

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Webster's Dictionaries

No branch of reference work is so important as is a thorough understanding of what can be found in recent dictionaries. We have become so accustomed to the word "dictionary" that we take for granted that every one knows how to use it without devoting any special thought to it. However, when we study the careful arrangement of the vast amount of information contained in a dictionary, we realize, to some extent, what a tremendous task it has been to prepare such a book. The preface to the dictionary is exceedingly interesting, though it is seldom read.

Webster's Dictionary is a title which is probably better known in this country than is that of any other one purely reference book. We have been using different editions of this dictionary for about one hundred years. The first Webster dictionary of any importance was published in 1828. In 1840 the first edition of the famous *Unabridged* appeared. In 1890 the *Unabridged* was thoroughly revised under the title of *International*. In 1909 the *International* was thoroughly revised under the present title of the *New International*, a careful study of which is given on the following pages.

The main part of the dictionary which gives the definitions of words is called the *vocabulary*. Much information is given before and after the vocabulary proper.

Before the Vocabulary Appear:

Plates giving *Flags, national, official, yacht club; State seals; Arms of the various nations.*

Preface; List of authors and works quoted; History of the English language; Guide to pronunciation; Orthography; Abbreviations used in dictionary; Addenda, that is, new words which came into the language after the main vocabulary was printed. These words are followed by a list of persons and places prominent too recently for entry in their regular order.

Language Changes

Language grows and decays just as does everything else connected with life. New words are constantly being coined because of new conditions, and old words pass out of use, that is, become obsolete. Such words as *camouflage* and *Rotarian*, for example, are quite recent. We owe a deep debt of gratitude to the scholars who have devoted themselves to the study of how the different languages came into being, and why some have died and why some have so changed that their early forms are no longer used, and how words pass from one language into another, and how different meanings arise for the same word. A modern dictionary represents the combined efforts of many scholars, it is not the work of one man; for example, students of medicine define the medical terms; chemists define the chemical terms, etc. When we stop to think that the history of each word in the English language is given in our great modern dictionaries, we marvel that we do not so treasure a dictionary that we consider it imperative to understand it clearly, to use it adequately, and to own it.

A very scholarly history of the English language is given in the front of *Webster's New International Dictionary*. Simply to read over the headings of the paragraphs and sections of this history gives one an enlarged grasp of the stages of growth through which the English language has passed. The paragraph below, which is selected from this history, is taken from an English work which was written about the year 1300. The English of that time was so different from the present English that we can scarcely read it without a translation. Try to make out what the first line of the old English means before reading the translation given in the paragraph below it, and then compare the other lines of the old English with the translation. Not only does a complete English dictionary record all words in current use, but it also includes in alphabetical order even such obsolete words as are found in this selection.

HISTORY OF THE ENGLISH LANGUAGE.

From Page xxxv.

§ 194. *From the Chronicle known as Robert of Gloucester's* (ll. 7,537-7,547). [Southern Dialect, about 1300.]

Thus com lo ! Engeland into Normandies hond,
and the Normans ne couthe speke tho bote hor owe speche,
and speke French as hii dude atom.

Translation. — Thus came, lo ! England into Normandy's hand, and the Normans **knew** not *how to* speak then but their own speech, and spoke French as *they* did at-home.

Important Abbreviations to be Noted in Connection with Definitions

If any definition is not in current use, an abbreviation follows it, indicating why. Such abbreviations as the following should be readily recognized: *R.*, rare; *Obs.*, obsolete; *colloq.*, colloquial, that is, conversational rather than formal English; *dial.*, dialect, that is, a form of a word peculiar to a dialect, and differing from the standard or literary form. When a word has a technical meaning, an abbreviation appears to indicate in what special field the word is so used, as: *Med.* medical; *Myth.* mythology; *Econ.* economic; *Her.* heraldry.

A list of all abbreviations used in defining words, is given at the front of the dictionary, immediately preceding the first word of the vocabulary or addenda. Abbreviations in ordinary use are seldom in the list at the front, but are entered in the dictionary in the alphabetical order of the abbreviation, as a word is entered. Consult the note below the specimen entry on the next page and find the meaning of the abbreviations there indicated.

The Divided Page

Page 152 from the vocabulary of *Webster's New International Dictionary* is reproduced on pages 6 and 7. Consult the page and notice that **below a horizontal line near the bottom** there are six columns, and that above it there are three columns. This divided page gains space by placing below the line unusual words, phrases, abbreviations, and other entries seldom used. When looking for a word, try the upper section first; if it is not there, try the lower section; *always on the same page*. Notice the clearness of the fine print.

ABBREVIATIONS USED IN THIS WORK.

NOTE. Abbreviations like *accus.*, *Bacteriol.*, printed in this list *acc(us)*., *Bact(eriol.)*., have sometimes been further shortened by omitting the letters inclosed by the parentheses. Similarly forms like *adj(s)*., indicate that both a singular, *adj.*, and a plural, *adjs.*, have been used.
For List of Authors Quoted see page 000.

a.		adjec-tive, a res,	Biol.		Biology.	Corn.		Cornish, Cornwall.	Ex., <i>Excheq.</i>	Ind.		Indian, Indiana.
A. B.		ante (L., before).	Bisc.		Biscayan.	corol.		corollary.	exc.	ind(ic)		indicative.
abbr(s), <i>abbrev.</i>		Bachelor of Arts	bitum.		bituminous.	correl.		correlative.	Exch.	indef.		indefinite.
abl.		abbreviated, ab-	Bk.		Book.	corrupt.		corruption, -rupt-	exclam.	Indo-Ch.		Indo-China.
Abp.		ablative.	B. L.		Breech-loading.	cos.		ed.	f.	Ind. Ter.		Indian Territory.
A. C.		Archbishop.	B. L. R.		Breech-loading	cosec.		cosine.	F., Fr.	inf., <i>infn</i>		infinitive.
		Ante Christum (L.,	bk.		Rifle.	Cosmog.		cosecant.	F., <i>Fahr.</i>	Ins.		Insurance.
		before Christ).	Bohem.		Black.	Cr.		Cosmogony.	F., <i>Fahr.</i>	inst.		instant.
acc(us).		accusative.	Bot.		Botany, Botanical.	Craniol.		Credit, -itor.	Far.	intens.		intensive.
Acous.		Acoustics.	Bp.		Bishop.	Craniom.		Craniology.	Feb.	inter.		interrogation.
act.		active.	Br.		British.	Crim.		Criminal.	fem.	interj.		interjection.
Act S.		Act of Sederunt.	Braz.		Brazilian.	Criminol.		Criminology.	Feud.	Internat., <i>In-</i>		International.
A. D.		Anno Domini (L.,	Bret.		Breton.	Crit.		Criticism.	fl.	t(er)		Interrogatory.
		in the year of our	Brig.		Brigade, Briga-	cryst.		crystallized.	fig., <i>figs.</i>	Interrog.		Interrogatory.
		Lord).	Brit.		dier.	Cryst(allog).		Crystallography.	fig., <i>figs.</i>	Introd.		Introduction.
adapt.		adapted.	B. Sc.		British, British.	Ct.		Court.	Fin.	Ion.		Ionic.
adj(s).		adjective(s).	B. Sc.		Bachelor of	ct(s).		cent(s).	Finn.	Ir.		Irish, Ireland.
adv.		adverb.	bu.		Science.	cu., <i>cu.</i>		cubic.	fl.	Iran.		Iranian.
Æol.		Æolic.	Bulq.		bushel(s).	cu., <i>cu.</i>		hundredweight(s).	Fla.	Ire., <i>Irel.</i>		Ireland.
AF.		Anglo-French.	B. T. U.		Bulgarian.	cwt(s).		hundredweight(s).	Flem.	irreg.		irregular, -ly.
Af., <i>Afr.</i>		Africa, African.	Bull.		British Thermal	Cyc.		Cyclopedia.	For.	It(s).		Islands.
Agr(ic).		Agriculture,	Burl.		Unit.	D.		Dutch.	Fort(if).	Ital.		Italian.
		-tural.			Bulletin.	d.		day, denarius or	fr.	italics.		italics.
A. H.		Anno Hejiræ.			Burlesque.	d.		denarii (L., pen-	Fr.	Jan.		January.
Ala.		Alabama.	c.		circa (L., about),	Dan.		ny, pence), died.	Fr.	Jap.		Japanese.
Alban.		Albanian.			caption, capit-	Dan.		Danish.	freq.	Jav.		Javanese.
Alchem.		Alchemy.			ulum (L., chap-	dat.		Dative.	Fries.	Jew.		Jewish.
Alex.		Alexander.			ter), cent(s),	D. C.		District of Colum-	ft.	Join.		Joinery.
Alg.		Algebra.			century, cubic.	D. C.		bia.	fut.	Jup.		Jupiter.
A. M.		Master of Arts.			century, cubic.	D. D.		Doctor of Divinity.	G.	Kan.		Kansas.
Am(er).		America, -ican.			Centigrade.	D. D.		Doctor of Divinity.	g.	kg.		kilogram(s).
Amend.		Amendment(s).			Calendar, Calends.	Dec.		December.	Ga.	km.		kilometer(s).
Anal.		Analytic, Analysis.			California.	def(s).		definitions, de-	Gael.	Ky.		Kentucky.
Anat.		Anatomy.			Cambridge.	deg.		degrees.	gal.	L.		Low.
Anc.		Ancient.			Canada, -dian.	Del.		Delaware.	Galt.	l.		liter(s).
Anc. R.		Ancient Rome.			capital(s) [initial,	Den.		Denmark.	Gaz.	L., <i>Lad.</i>		Latin.
Angl.		Anglican, Angli-			or letters].	Dept.		Department.	Gen.	Ld.		Louisiana.
		cized.			Captain.	der(iv).		derivative, derived.	gen.	lat.		latitude.
Anglo-Am.		Anglo-American.			Cauticles.	dial.		dialectic, -tical.	Geneal.	lb(s).		pound(s).
Anglo-Ind.		Anglo-Indian.			Carolus (L.,	diam.		diameter.	Gent.	l. c.		lower case [small
Anglo-Ir.		Anglo-Irish.			Charles).	Dict.		Dictionary.	Geo.	letters (word or		initial) not cap-
Anon.		Anonymous.			Carpentry.	dim.		diminutive, dim-	Geod.	itals].		Letish.
ans.		answer, answer-			carats.	Disp.		inution.	Geol.	LG.		Low German.
		ing.			Cartography.	Dist.		Dispensatory, Dis-	Gent.	LGr.		Low Greck.
Antiq.		Antiquity, -ties.			causative.	dist(ing).		putations.	Geo.	LHeb.		Late Hebrew.
Anthol.		Anthology.			Catholic.	disus.		District.	Ger.	Lieut.		Lieutenant.
Anthrop(ol).		Anthropology.			Catalan.	div.		divided, dividend,	Ger. E. Af.	liq.		liquid.
Anthropom.		Anthropometry.			cubic centimeters.	div.		distingushed.	Ger. E. Af.	Lit.		Literature.
aor.		aorist.			cent. centimeters.	do.		disused.	Ger. E. Af.	lit.		literal, -ally.
A. O. U.		American Orni-			Celtic.	dol(s).		Division.	Gloss.	Lith.		Lithuanian.
		thologists' Union,			Central.			divisor.	Goth.	Lithog.		Lithography.
App.		Appendix.			century, centimes.			divided, dividend,	Goth.			
App.		Appeals.			centimeters.			divisor.	Gov(t).			
app., <i>appar.</i>		apparently.			Ceramics.			ditto (L., the	Gr.			
App. Div.		Appellate Divi-			confer (L., com-			same).	gr.			
					pare).			dollar(s).	Gram.			

NOTE: One should form the habit of turning to the table represented above whenever an abbreviation, used in **defining** a word, is not recognized. Find the following in the specimen entry above:
a. abbr. adv. Anat. cap(s). cf. dial. exc. F or Fr. ff. fig. fl. fr. Gaz. l. c.
Lit. (beginning with a capital) lit. (beginning with a small letter).

2. Belonging to an auditorium.
auditory aphasia, word deafness. — **a. canal**, *Anat.*, the tube from the external opening of the ear to the tympanic membrane. See **EAR**. — **a. impressiveness**, *Phon.*, sonority. — **a. meatus**, *Anat.*, either of two passages of the ear. The external auditory meatus leads from the external opening to the tympanic membrane; the *internal* is a short canal by which the acoustic and facial nerves leave the cranial cavity. Also applied to the openings of these canals on the external and internal surface of the skull. See **EAR**. — **a. nerve**, *Anat.*, the special nerve of hearing, passing from the medulla through the internal auditory meatus to the membranous labyrinth of the ear. The auditory nerves are the eighth pair of cranial nerves, in old nomenclature the *portio mollis* of the seventh pair. See **EAR**. — **a. tentacle**. *Zoöl.* = **TENTACULOYST**.

au'di-to-ry (ô'dî-tô-rî), *n.* [**L. auditorium**.] **1.** An assembly of hearers; an audience.

His naked *auditory*, squatted on the ground like apes, listened in wonder and awe. *Parkman.*

2. An auditorium.

3. A lecture room; a school (of philosophy). *Obs.*

Au'drey (ô'drî), *n.* In Shakespeare's "As You Like It," a country wench keeping company with Touchstone.

Auerbach's plexus (ou'er-bäks). [After Leopold Auerbach, German physician.] *Anat.* A collection of nerve fibers and ganglia between the longitudinal and circular muscular layers of the intestine.

au'falt' (ô'fê'), [**F.**, lit., to the deed, act, or point. See **FEAR**.] Expert; skillful; well instructed.

Auf'klä-rung (ouf'klâ-röng), *n.* [**G.**, enlightenment.] A philosophic movement of the 18th century characterized by a lively questioning of authority, keen interest in matters of politics and general culture, and an emphasis on empirical method in science. It received its impetus from the unsystematic but vigorous skepticism of Pierre Bayle, the physical doctrines of Newton, and the epistemological theories of Locke, in the preceding century. Its chief center was in France, where it gave rise to the skepticism of Voltaire, the naturalism of Rousseau, the sensationalism of Condillae, and the publication of the "Encyclopedia" by D'Alembert and Diderot. In Germany, Lessing, Mendelssohn, and Herder were representative thinkers, while the political doctrines of the leaders of the American Revolution and the speculations of Benjamin Franklin and Thomas Paine represented the movement in America.

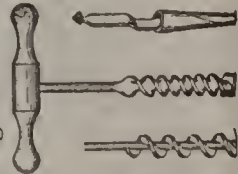
au'gê (ou'gê), *n.*; *pl.* **AUGEN** (ou'gên). [**G.**, lit., eye.] *Geol.* A roundish or lenticular nodule in a crystalline rock; — often in comp. in *pl.*, as in *augen-gneiss*, *augen-gabbro*.

Au'gê (ô'jê), *n.* [**L.**, fr. **Gr.** Ἀῦγη.] *Gr. Myth.* The heroine of a lost play by Euripides. She is an Arcadian princess and priestess of the virgin goddess Athena. She becomes mother of Telephus by Hercules, a plague afflicts the land, and she and her babe are condemned to death. Hercules rescues them.

Au-ge'an (ô-jê'an), *a.* [**L. Augeas, Augias, Augeas**, **Gr.** Αὔγεια]. **1.** *Gr. Myth.* Of or pertaining to Augeas, king of Elis, whose stable contained 3000 oxen, and remained uncleaned for 30 years. Hercules cleansed it in a day by turning the rivers Alpheus and Peneus through it.

2. Hence: Exceedingly filthy or corrupt.

au'gôr (ô'gêr), *n.* [**ME. augoure, nauger**, **AS. nafegâr**, fr. *nafu* nave of a wheel + *gâr* spear, and therefore meaning properly and originally a nave bore. See **NAVE** (of a wheel); **3d GORE**, *n.*] **1.** A carpenter's tool for boring holes larger than those bored by a gimlet. It has a fixed or adjustable handle, placed cross-



Petrog. Containing augite in the form of porphyritic crystals or phenocrysts.

aug-ment' (ôg-mên't'), *v. t.*; **AUG-MENT'ED**; **AUG-MENT'ING**. [**L. augmentare**, fr. *augmentum* an increase: cf. **F. augmenter**. See **AUGMENT**, *n.*] **1.** To enlarge or increase in size, amount, or degree; to swell; to make bigger; as, to *augment* an army by reinforcements; rain *augments* a stream; impatience *augments* an evil. *Fortescue*. "Their spite still serves His glory to *augment*." *Milton*.

2. *Gram.* To add an augment to.

3. *Her.* To make an augmentation to (a coat of arms).

Syn. — See **INCREASE**.

aug-ment', *v. i.* To be or become augmented; to increase.

As the morning advances, the din of labor *augments*. *Irring*. **aug'ment** (ôg'mên't), *n.* [**L. augmentum**, fr. *augere* to increase: cf. **F. augment**. See **ÊRE**, *v.*; cf. **AUTHOR**.] **1.** Enlargement by addition or extension; increase. *Obs. or Archaic.* **2.** *Gram.* A vowel prefixed, or a lengthening of the initial vowel, to mark past time, as in Greek and Sanskrit verbs.

In Greek, the *syllabic augment* is a prefixed ε, forming an initial syllable; the *temporal augment* is an increase of the quantity (time) of an initial vowel, as by changing ε to η.

aug'men-ta'tion (ôg'mên-tă'shôn), *n.* [Cf. **L.L. augmentatio**, **F. augmentation**.] **1.** Act or process of augmenting; state of being augmented; that which augments.

2. In technical senses: **a** *Her.* An additional charge to a coat of arms, given as a mark of honor. **b** *Med.* The stage of a disease in which the symptoms continue to increase.

c *Music*. In counterpoint and fugue, a repetition of the subject in tones of twice the original length. See also **MENSURABLE MUSIC**. **d** *Bot.* An increase above the normal number of parts; — also called *multiplication*. **e** *Scots Law*. Increase of stipend obtained by a parish minister by an action (*process of augmentation*) in the Court of Teinds against the titulars and heritors. **f** [*cap.*] With *the*: — The Augmentation Court (see below).

Syn. — Increase, enlargement, growth, extension, accession, addition.

augmentation of a chain, *Mech.*, the increasing of the number of its working parts. See **CHAIN**. — **a. of the moon's diameter**, increase of the moon's apparent diameter as it approaches the zenith.

Augmentation Court. *Eng. Hist.* A court established by Stat. 27 Hen. VIII. c. 27 (1536) to determine controversies connected with suppression of the monasteries, by which the crown revenues were largely augmented. It was dissolved by 1 Mary s. 2, c. 10 (1553) and its records filed in the Augmentation Office. Elizabeth reconvened it in 1558.

aug-ment'a-tive (ôg-mên-tă-tîv), *a.* [Cf. **F. augmentatif**.] Having the quality or power of augmenting: expressing augmentation. — **aug-ment'a-tive-ly**, *adv.*

aug-ment'a-tive, *n.* *Gram.* A word which expresses with augmented force the idea of the term from which it is derived, or a suffix or other element used in forming such a word; as, *dullard*, one very dull. Opposed to *diminutive*.

aug-ment'ed, *p. p. & p. a.* of **AUGMENT**, *v.* — **aug-ment'ed-ly**, *adv.*

augmented interval. *Music*. See **INTERVAL**, **6.** — **a. latitude**, in Mercator's projection, a parallel of latitude having its distance from the equator increased in the same proportion that the meridians (which are drawn parallel to each other) have been separated from their proper places. This is necessary to enable a rhumb line (or loxodromic curve) to be correctly represented on the chart as a straight line.

2. To inaugurate. *Rare.* *Latimer*.

Syn. — Predict, forebode, betoken, portend, presage, prognosticate, prophesy, forewarn. See **FORETELL**. **au'gur** (ô'gûr), *v. i.* **1.** To make an augury; to conjecture from signs or omens; prognosticate; foreshow. *Shak.*

My *auguring* mind assures the same success. *Dryden*. **2.** To anticipate, to foretell, or to indicate a favorable or an unfavorable issue; — with *well* or *ill*; as, it *augurs* well.

Followed by *for* or *of*.

au'gu-ral (ô'gû-räl), *a.* [**L. auguralis**.] Of or pert. to augurs or augury; ominous; significant; as, an *augural* staff; *augural* books. "Portents *augural*." *Cowper*.

au'gu-rate (-rät), *n.* [**L. auguratus**.] The office of an augur. *Merivale*.

au'gu-ry (-rî), *n.*; *pl.* **-RIES** (-rîz). [**L. augurium**: cf. **OF. augurie**.] **1.** Art or practice of foretelling events by auspices or omens; divination. See **AUGUR**. **2.** An omen; prediction; prognostication; indication of the future; presage.

From their flight strange *auguries* she drew. *Drayton*. He resigned himself . . . with a docility that gave little *augury* of his future greatness. *Prescott*.

3. A rite, ceremony, or observation of an augur.

au-gust' (ô-gûst'), *a.* [**L. augustus**; cf. *augere* to increase; in the language of religion, to honor by offerings: cf. **F. auguste**. See **AUGMENT**.] Of a quality inspiring admiration and reverence; having an aspect of solemn dignity or grandeur; sublime; majestic; also, having exalted birth, character, state, or authority. "*August* in visage." *Dryden*. "Forms *august*." *Pope*. "To shed that *august* blood." *Macaulay*.

So beautiful and so *august* a spectacle. *Burke*. To mingle with a body so *august*. *Byron*.

Syn. — Grand, magnificent, noble, stately, dignified, imposing, solemn, awful. — **AUGUST**, **VENERABLE**, **MAJESTIC** come into comparison in the sense of *imposing*. That is **AUGUST** which inspires reverence mingled with admiration or awe: that is **VENERABLE** which is hallowed by time or dignified by exalted associations; as, "the forms *august*, of king or conquering chief" (*Pope*); "At church, with meek and unaffected grace, his looks adorned the *venerable* place" (*Goldsmith*). That is **MAJESTIC** which possesses inherent stateliness or grandeur; as, "Siddons, in the prime of her *majestic* beauty" (*Macaulay*). See **GRAND**.

Au-gust (ô'gûst), *n.* [**L. Augustus**. See **AUGUST**, *a.*] The eighth month of the year, having 31 days; — so called in honor of Augustus Cæsar. The old Roman name was *Septilis*, the *sixth* month from March, the month in which the primitive Roman year began.

Au-gus'ta (ô-gûs'tă), *a.* [From *Augusta*, Arkansas.] *Geol.* Pertaining to or designating a subdivision of the Mississippian period. See **GEOLOGY**, *Chart*.

au-gus'tal (-täl), *n.* An Italian gold coin weighing 30-40 grains ($\frac{1}{5}$ - $\frac{1}{4}$ gram), struck in the 13th century by the emperor Frederick II., and copied after the aureus.

Au-gus'tan (-tân), *a.* [**L. Augustanus**. See **AUGUST**, *n.*]

1. Of or pertaining to Augustus Cæsar or his times; designating, pertaining to, or characteristic of, his age or any age (esp. that of Queen Anne in England) likened to it (see **AUGUSTAN AGE**, below); hence, correct in taste; classical. You should disdain, and I despair, With quite the true *Augustan* air. *Dobson*.

2. Of or pertaining to the town of Augsburg (ancient Lat. name, Augusta Vindelicorum).

Augustan æra, in any national literature, the period of its

hands. The augers with a straight groove are called **pod augers**; the more modern ones with a spiral channel or channels are called **screw augers**. The various kinds are designated according to their shape, purpose of use, etc., as annular auger, slotting auger, etc.

2. An instrument for boring or perforating soils or rocks, as for determining the quality of soils, or the nature of the rocks or strata upon which they lie, or for obtaining water.

auger bit. A bit with a cutting edge or blade like that of an auger.

auger shell. A gastropod shell of the genus *Terebra* or allied genus; — so called from the long spiral form.

auger worm. The larva of the goat moth; — so called from its boring in trees. See **GOAT MOTH**.

au-get' (ô-jět'; ô'zlä'), **au-gette'** (ô-jět'), *n.* [F. *auget*, dim. of *auge* trough, fr. L. *alveus* hollow.] *Mining*. A priming tube connecting the charge chamber with the place where the slow match is applied.

ought (ôt), *n.* Also **ought**. [ME. *ought*, *ought*, *awiht*, AS. *awiht*; *ā* ever + *wiht*. See **AVE** ever, **wiht**, **wight**.] 1. Anything; any part.

There failed not *ought* of any good thing which the Lord had spoken. But go, my son, and see if *ought* be wanting. *Addison*.

2. [a *naught* taken as an *ought*.] In arithmetic, a cipher; hence, fig., a naught, a nothing. "A naked *ought*," *Tennyson*. It was said . . . that all Cambridge scholars call the cipher *ought* and all Oxford scholars call it naught. *Maria Edgeworth*.

ought (ôt), *adv.* At all; in any degree; to any extent.

au-gite (ô'jit), *n.* [L. *augites*, Gr. *αυγίτης*, fr. *αυγή* bright-ness.] *Min.* An aluminous variety of pyroxene, usually of black or dark green, occurring in igneous rocks, such as basalt; also, sometimes, any pyroxene. — **au-gitic** (ô-jit'ik), *a.*

au-gi-tite (ô'ji-tit), *n.* [See **au-gite**.] *Petrog.* A volcanic rock consisting essentially of augite, or augite and magnetite, in a glassy ground mass.

au-gi-to-phy'ric (ô'ji-tô-fir'ik), *a.* [*augite* + *porphyritic*.]

|| au-dit' que vo-ca'tus A-pol'-lo. [L.] And (if) Apollo hears when invoked. *Vergil* (*Georgics*, IV. 7).

|| au'-di-tress, *n.* Fem. of **AUDITOR**.

|| au-dit'u-al (ô-dit'û-âl), *a.* [See **AUDIT**.] Auditory. *Rare*.

|| au'-di-tur, au'-di-ture, *n.* [F. *auditoire*.] An auditory; audience. *Obs. Scot.*

|| Au'-du-ben's shear'wa'ter (ô'-dû-bônz). [After J. J. Audubon, AMERICAN ornithologist.] See **SHEARWATER**.

|| aue. + AWE, float of a wheel.

|| auen. + EVEN, OWN.

|| anenterous. + ADVENTUROUS.

|| auer. + AVER, OVER.

|| aucte. + ADVERT.

|| aucte. + EFT.

|| au-cle. + AVALÉ.

|| auf, aufe (ôf). Obs. or dial. Eng. var. of **OAF**.

|| au-fer'te ma'lam ex vo'bis. [L.] Put away evil from among you.

|| au'-ge-scho'-ben ist nicht auf-ge-ho'-ben (ouf'gê-shô'bên ist nîkt ouf'gê-hô'bên). [G.] Put off is not given up.

|| au'-ish. + OAFISH.

|| aufl. *Abbr.* Auflage (Ger., impression of a book; edition).

|| au' fond' (ô'fôn'), [F., lit., at the bottom.] At bottom; fundamentally; essentially.

|| au' four' (ô'fôor'). [F.] Lit., in the oven; baked.

|| au' fro'mage' (frô'máz'h'). [F.] With cheese.

|| au' full. + AWFUL.

|| au' wile'der-sch-en (ouf'vê'-dêr-zâ'ên). [G.] Lit., to the seeing again: au revoir; a river-derel; — a form of farewell.

|| aufzn. + ALFIN.

|| Aug., or aug. *Abbr.* Augmentative; augmented; August; Augustan; Augustus.

|| auge, *n.* [OF. (Cf. Sp. *auge*), fr. Ar. *awg*.] *Obs.* 1. = **APOCEE**, 1, 2. 2. = **APSES**, 1.

Augs'burg, or **Au-gus'tan**, **Con-fes'sion** (ouks'bôörk; ô-güs'tân). A statement of faith drawn up by Melancthon at Augsburg (Lat. *Augusta Vindelicorum*), and embodying Luther's views. It was presented at the Diet of Augsburg, June 25, 1530, as the creed of the Lutheran Church, and was adopted and signed by 7 German princes, including 3 electors, and by representatives of 6 cities.

au'gur (ô'gür), *n.* [L. Of uncertain origin: the first part of the word is perh. fr. L. *avis* bird.] 1. *Rom. Relig.* A member of the highest class of official diviners of ancient Rome. Among the sacerdotal orders, the college of augurs, which comprised successively 3, 6, 9, and, after Cæsar's time, 16 members, ranked next after the pontifical college. Its sole duty was the interpretation of signs and portents.

Observations were made from a rectangular space, or templum, which was not necessarily marked out except verbally (by the augur). Auguries were of two main classes: Solicited auguries (*auguria impetrativa*) comprised predetermined signs answering definite questions, as when the flight of birds from this or that quarter of the heavens declared the conditions for an undertaking favorable or unfavorable. Unsolicited, or voluntary, auguries (*auguria oblativa*) comprised unexpected portents or omens, occurring during the observation. These latter were interpreted according to the accumulated lore of the augurs. Since the observation of the flight of birds, *auspice*, was the chief mode of *augury*, the two terms (as also *augur* and *auspex*) are largely interchangeable. (Cf., however, **HARUSPEX**.) The insignia of the augur comprised his *trabea*, or robe, and *lituus*, or staff.

2. One who foretells events by omens; a soothsayer; a diviner; a prophet.

Augur of ill, whose tongue was never found without a priestly curse or boding sound. *Dryden*.

au'gur, *v. t.*; **au'gured** (ô'gürd); **au'gur-ing**. [L. *augurari*: cf. F. *augurer*.] 1. To predict or foretell, as from signs or omens; to betoken; portend; presage; infer.

It seems to *augur* genius. *Scott*.

I *augur* everything from the approbation the proposal has met with. *Sir J. Herschel*.

au-git'o-phy're' (ô-jit'ô-fir'), *n.* [*Petrog.* Porphyry with augite phenocrysts.

|| aug-ment'a-ble, *a.* See **-ABLE**.

|| aug-men-ta'tion-er, *n.* *Scots Law*. An officer of the Augmentation Court. [*Ref. Sp.*]

|| aug-men'ta-tiv. Augmentative.

|| aug-ment'er, *n.* One that augments; specif., *Mach.*, a device, consisting essentially of a small steam jet in a diminished aperture, for increasing the vacuum in a steam-engine condenser.

|| aug-men'tion, *n.* Augmentation. *Obs.*

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|| augoer, augor, augoure. + **AUGER**.

|| au' grand' sé'rieux' (ô' grän'sêr'yô'). [F.] In all seriousness.

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|| au' gra'tin' (grä'tân'). [F.]

au-git'o-phy're' (ô-jit'ô-fir'), *n.* [*Petrog.* Porphyry with augite phenocrysts.

|| aug-ment'a-ble, *a.* See **-ABLE**.

|| aug-men-ta'tion-er, *n.* *Scots Law*. An officer of the Augmentation Court. [*Ref. Sp.*]

|| aug-men'ta-tiv. Augmentative.

|| aug-ment'er, *n.* One that augments; specif., *Mach.*, a device, consisting essentially of a small steam jet in a diminished aperture, for increasing the vacuum in a steam-engine condenser.

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|| aug-men'tive, *a.* &

Details Illustrated by Words Selected from the Sample Page Above the Dividing Line

Key to Pronunciation: At the very bottom of page 7, notice a line of words beginning with *ale*, and extending across the page. Each of these words contains a vowel with a characteristic mark above it. The sound of the marked vowel in these words is the sound which should be given to this vowel in the respelling to show pronunciation. Such marks are called *diacritical*.

The symbols for "a" come in the first group of eight words. Notice that there are two types for a; the regular type (a) and the italicized (*a*.) Give the word indicating the sound represented when an italicized *a* has a curve over it, that is when it is marked short; give the word indicating the sound represented by a of ordinary type, marked short. When the sound of a, as in *sofa* is to be represented, which a is used, and what mark is given above it? What word represents the sound indicated by a dot above the a of regular type? Count the number of symbols for e. Give the word which represents short italicized *e*, and the one for short e of regular type. Count the symbols used for i; for o; for u. What word represents short italicized *o*? Notice that the order of the groups of vowels is alphabetical, *a, e, i, o, u*.

This line appears at the bottom of left hand pages in the vocabulary; at the bottom of right hand pages a similar plan is used to indicate the sounds for the consonants and double vowels: thus a condensed key for these *diacritical marks*, can be consulted wherever the dictionary is opened. Pages numbered in Roman numerals at the front of the dictionary under the heading *Guide to Pronunciation* give numbered paragraphs which contain full particulars regarding pronunciation. These paragraphs are frequently referred to by number in connection with the pronunciation of a word.

Pronunciation illustrated: The word *augur* has three entries in heavy black-faced type as follows: the first entry comes a little below the middle of the second column; the second, about two inches below the first; the third, near the top of the next column. Each entry begins with a lower case letter, indicating that *augur* should not begin with a capital letter within a sentence. Under the first entry of *augur*, the pronunciation is given by respelling the word in parentheses. Notice that the sound for the first syllable is indicated by placing a circumflex over an o. Glance down to the bottom of the page and find a word containing an o with the same mark above it. The first syllable in *augur* is therefore pronounced like o in what word? Notice that the u in the second syllable has a curve over it, that is, it is short, but instead of being a u of ordinary type it is italicized. What word at the bottom of the page gives the sound for a short italicized *u*? The heavy accent mark indicates that the voice should emphasize the first syllable.

Parts of Speech: After the pronunciation of a word is given, the part of speech to which it belongs is indicated by an abbreviation. What letter signifies that the first *augur* is a noun? What letters, that the second is a transitive verb? What letters, that the third is an intransitive verb?

Derivation: other items: In brackets, directly following the part of speech the derivation (etymology), or language from which a word is derived, is given. Read the derivation under *augur*, *n.*, trying to interpret the abbreviations used. If the meaning of *perh.* (or of *L*), for example, is not clear, where in the complete dictionary could both be found? How many numbered definitions are given under *augur*, *n*? Read definition number 2. What abbreviations are given at the beginning of definition number 1 to indicate that the use of the word in Roman Religion is defined. Notice that this definition is very long, and that occasionally words in small black-faced type appear within it. Unless one is alert to the subdivisions in black-faced type under long entries, much of the value of the dictionary is lost. What

author is quoted to illustrate the use of definition number 2? How many numbered definitions has *augur*, *v. t.*? Are the principal parts of the verb given? The pronunciation of what part is indicated? What does *cf. F.* in the derivation mean? How many definitions has *augur*, *v. i.*? The pronunciation of *augur*, *v. i.*, is given even though it is the same as *augur*, *n.*, because the two words are not close together on the page. The principal parts and the derivation are not repeated because they are the same as for *augur*, *v. t.*, directly preceding it. Is the pronunciation of each syllable of *augurate* and of *augury* indicated? What word directly above them gives the pronunciation of the first syllables? Is the *u* in the second syllable of *augural* pronounced as it is in *augur*? Consult the third syllable of *augural* and find the word at the bottom of the page which indicates the sound of *a*. What abbreviation is used for Shakespeare, as quoted after definition number 1, under *augur*, *v. i.*? The second meaning of *augur*, *v. i.*, should be followed by what prepositions? Notes form a very valuable feature of the dictionary.

Synonyms: The abbreviation Syn. after number 2 of *augur*, *v. t.*, calls attention to other words similar in meaning. Give the first synonym suggested for *augur*, *v. t.* At the end of the list of synonyms, what word is referred to for other synonyms? Notice that synonyms are given after the last numbered definition. Give the first synonym mentioned for *augmentation*. At the end of the note under synonyms for *august*, *a.*, what word is referred to for other synonyms? The fact that a synonym can be found in the dictionary for every important word in the language having a synonym, should be kept in mind by those who wish to cultivate a choice use of words.

Irregular plurals: Any plural which is not formed by adding *s* to the singular is given after the singular of the word. Consult the word *augury*, and find after the abbreviation *pl.* (plural), the last syllable of the plural of the word, and give the pronunciation of this syllable which is indicated in parentheses directly following. Is the plural of *augur*, *n.* irregular?

Emphasis: After which syllable of the adjective *august* does a heavy accent (') appear, to indicate where the stress of the voice should be placed in the pronunciation of the word? On which syllable should the stress be placed for *August*, *n.*? On which syllable should the stress be placed for *augment*, *n.*; for *augmentation*, *v. t.*? On which syllable in *augmentation* is the heavy emphasis placed? On which is a slight emphasis placed?

Subdivisions of definitions: Definition number 2, under *augmentation*, has several subdivisions which are lettered. What abbreviation, within brackets after subdivision *f*, indicates that when *augmentation* follows *the*, referring to a court, it should begin with a capital letter? Try to give the meanings of the abbreviations following the letters from *a* to *e*. Where can such abbreviations be found?

Fictitious Characters: Many names of characters in literature and mythology, though they are not real characters, are entered in the vocabulary, above the line, if prominent; below, if not. Characters in the Bible are also entered on the same plan. In which one of Shakespeare's plays does the fictitious character of *Audrey* appear? What abbreviation is given at the beginning of the first definition of *Augean* to indicate that it pertains to Greek Mythology?

Guide Words: Notice the words in large capital letters at the top of columns one and three, in line with 152. These words indicate that all entries which come in alphabetical order between AUDITORY and AUGUSTINIAN will be found on page 152. Each page of the vocabulary has corresponding guide words.

Entries Below the Horizontal Line

Abbreviations: Find *Aug.* in the second column below the horizontal line and give its meanings.

Rare words: The word *august*, is sometimes used as a verb, but this use is rare and so the entry is below the line. Read the entry.

Foreign phrases: Phrases in foreign languages that are frequently quoted are given in the dictionary. Those which are most common appear above the line; the others below the line. Find the following phrases below the line, and give their translation: *au grand sérieux*; *aufer te malum ex vobis*. Find what the two vertical lines before each of them mean by consulting the bottom of the page.

Reformed spelling: Find *augmentativ* below the line and give the abbreviation which is placed after it, but on the line above, because there is not room on the same line. The abbreviation *Ref. Sp.* indicates that the reformed spelling of *augmentative* drops the final *e*.

Obsolete spelling: The word *aufull* is followed by a dagger, and what word in capital letters? The dagger signifies that the spelling of *awful* has varied at times, that of *aufull* being now obsolete. What words, after a dagger at the bottom of the page, indicate this fact?

Christian names: The meanings of Christian names are frequently given below the line. What does the name *Augusta* mean, literally?

Definitions of Words Are Entered in Historical Order

Many words in the English language have several distinctly different meanings, and are capable of being used as different parts of speech. It is important to realize that the order in which the meanings are entered in Webster's dictionary is historical; that is, the part of speech which was used first is entered first, and the several definitions under it are in the order in which the meanings came into use.

Selected entries of words from *naught* to *nothing* follow to illustrate the many changes of meaning through which a word may pass, and the order in which these meanings are arranged. Does the word *naught*, as an adjective or as a noun, come first in the dictionary? Therefore, since words are entered in historical order, which part of speech for *naught* came into the language first? Is the pronunciation of *naught* given under both the noun and the adjective? Is the derivation given under each entry? The derivation of a word is not repeated every time the word is entered, unless the difference in meaning can be traced to different languages: neither is the pronunciation always repeated unless the words as different parts of speech are differently pronounced, or unless the first and last entries are widely separated by a page or column. It is necessary sometimes to look back to the first entry of a word, if the derivation or the pronunciation is desired.

Specimen Entries from Webster's New International Dictionary.

naught (nô't), *n.* [ME. *naught*, *nought*, *naht*, *nawiht*, AS. *nāwihht*, *nāuht*, *nāht*, *nōwihht*, *nōht*; *ne* not + *ā* ever + *wiht* thing, whit; hence, not ever a whit. See *NO*, *adv.*, *WHIT*; cf. *AUGHT*, *NOT*.] 1. Nothing; nought.

Doth Job fear God for *naught*? Job i. 9.

2. Wickedness; wrong; evil; hence, that which is wrong, wicked, or faulty. Obs. Shak.

3. The arithmetical character 0; a cipher. See *CIPHER*, *n.*, 1.

4. A wicked or bad person. Obs. or R.

to be *naught*, to go away or be still; to subside; — usually in mild imprecations equiv. to "be hanged to you." Obs. "Marry, sir, be better employed and be *naught* awhile." Shak. — to call, or speak, all to *n.*, to abuse vigorously. Obs.

naught, a. 1. Of no account; worthless; bad; useless. It is *naught*, it is *naught*, saith the buyer. Prov. xx. 14.

2. In Obs. senses: *a* Hence, vile; base; naughty. *b* Hurtful; bad; unfit. *c* Ruined; wrecked; lost.

Go, get you to your house; begone, away! All will be *naught* else. Shak.

naught'i-ly (nô'tī-lī), *adv.* In a naughty manner; specif.: *a* Wickedly; perversely. Obs. Shak. *b* Poorly; badly. Obs. *c* Misbehavingly; as, a child behaves *naughtily*.

naught'i-ness, *n.* Quality or state of being naughty; specif.: *a* Wickedness; depravity; perverseness. Obs. *b* Badness; faultiness. Obs. *c* Misbehavior; as, the *naughtiness* of a child.

naught'ty (nô'tī), *a.*; *NAUGHT'Y-ER* (-tī-ēr); *NAUGHT'Y-EST*.

1. Having nothing; destitute. Obs. [Men] that needy be and *naughty*. Piers Plowman.

2. Worthless; bad; disagreeable; unhealthy. Obs. The other basket had very *naughty* figs. Jer. xxiv. 2.

3. Wicked; morally bad; wrong. Archaic or Euphemistic. So shines a good deed in a *naughty* world. Shak.

4. Mischievous; wayward; guilty of disobedience or misbehavior; as, a *naughty* child. Rare, exc. as applied to children, or in sportive censure.

5. Insignificant. Obs. or R. Oxf. E. D. Syn. — See *BAD*.

nought (nô't), *n.* [AS. *nōwihht*, var. of *nāwihht*. See *NAUGHT*.]

1. Nothing; naught. Archaic.

2. Nonexistence; nonentity; nothing. Archaic.

3. Arith. Nothing; zero; also, a cipher or zero; a *naught*.

4. A worthless or valueless thing or person; a nothing.

5. Worthless or evil behavior or character. Obs.

for *nought*. = FOR NOTHING *b*, *c*, & *d*. Obs. or R. — to be *n.*

= to be *naught*, under *NAUGHT*, *n.* Obs. & R.

noth'ing (nūth'ing), *n.* [From *no*, *a.* + *thing*.] 1. Not anything; nothing (in the widest sense of the word *thing*); nought; partitively (now rare with an adjective), no share, element, part; — opposed to *anything* and *something*.

Nothing will come of *nothing*. Shak.

Yet had his aspect *nothing* of severe. Dryden.

2. That which is or may be taken or considered as nonexistent; what is of no significance; as, it is *nothing* to me.

Is this *nothing*? Why, then the world and all that's in 't is *nothing*. Shak.

3. Arith. Absence of all magnitude or quantity, however small; also, a cipher; a zero.

4. That which does not exist; a nonentity.

Quite consume us, and reduce To *nothing* this essential. Milton.

5. A thing that may be taken as nonexistent; a thing of no account, value, note, or the like; specif., a person of no importance; a nobody.

One that lies three thirds and uses a known truth to pass a thousand *nothings* with. Shak.

Wretched *nothings*, think ye not to flee. Shelley.

6. Nothingness; utter insignificance. Obs. Shak.

7. Hegelianism. That which is characterized by utter absence of determination; perfect indistinguishableness.

all to *nothing*, by all odds; to the fullest extent. Rare. — for *n.* *a* By no means; in no wise. Obs. *b* To no purpose; in vain. *c* For no reason; groundlessly. *d* Without cost; free. — *n.* much, not a great deal; very little. — *n.* off, *Naut.* an order to the steersman to keep the vessel close to the wind.

If a man has wealth, we call him wealthy; he was once called naughty if he had naught. Read the first definition under *naughty*. This meaning, which is so completely out of use now, is given first because it is the first meaning the word had. What abbreviation follows, indicating that the word is no longer used in this sense? Is definition number 2 in common use? Definition number 4 is the only meaning of *naughty* which has survived, and even it is rarely used except as applied in what connections? What letter, after definition number 5, indicates that the meaning is rare, if not wholly obsolete? Is the comparison of the adjective *naughty* given?

How many numbered definitions are given under the word *nothing*? Find, three lines below the last number, the phrase, *all to nothing*, and give its meaning, marked *Rare*. In the next phrase, which is not written out in full, what word is understood by *n*, after *for*? How many lettered subdivisions are given under this phrase? Which one is not in current use? After the fifth definition of *nought*, find the cross reference for the equivalent of the phrase *for nought*, and give the meaning for subdivisions b and c, under *for nothing*. What word is referred to for the obsolete meaning of *to be nought*, under *nought*. Give the obsolete meaning of the phrase *to call (or speak) all to naught*.

Capitalization of Entries

Notice under the entry which follows, that the word *Psyche* begins with a capital letter. In its most frequent use, *Psyche* refers to the character so named in classical mythology, and hence is a proper noun. However, it is a common noun in the meanings given under definitions numbered 2 and 3, and therefore should begin with a small letter in a running sentence. How is the fact indicated that small letters, that is *lower case* letters, should be used in these definitions?

Under definition number 4, which pertains to astronomy, reference is made to a table under what word? Should *Psyche* begin with a lower case letter or with a capital, in this connection?

At the end of definition number 2, the abbreviation *Cf.* suggests a comparison with what word, and what numbered definition of it?

If the abbreviation *orig.*, in the first line of definition number 2, is not recognized from its connection, consult *abbreviations* before the vocabulary.

Read definition number 1, and notice how clearly and concisely the myth is stated.

Psy'che (sī'kê ; psī'- ; 218), *n.* [L., fr. Gr. Ψυχή Psyche, fr. ψυχή the soul.] **1.** *Class. Myth.* A lovely maiden, the personification of the soul, usually represented with the wings of a butterfly, emblematic of immortality. In the "Golden Ass" of Apuleius, Psyche is a beautiful princess of whom Venus becomes jealous. The goddess orders Cupid (Eros) to inspire Psyche with an unworthy love, but Cupid himself falls in love with her and visits her by night, forbidding her to seek to learn who he is. Told by her sisters that her lover is a monster, she brings a lamp to the bedside one night when he is asleep. A drop of burning oil falling on his shoulder awakes him, and he leaves in anger. Psyche is then condemned to long wanderings and labors, imposed by Venus, but at last is reunited to her lover, made immortal, and raised to Olympus.
2. [*l. c.*] The human soul; orig., the vital breath or animating principle; later, the mental or sensuous soul; finally, the pure spiritual being whose true estate is not the bodily, but one loftier and less evanescent. Cf. PNEUMA, 3.
3. [*l. c.*] [F. *psyché*.] A cheval glass. *Now Rare.*
4. *Astron.* See ASTEROID, *Table*.

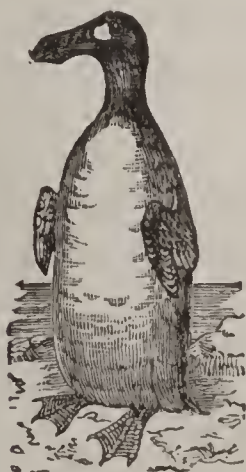
Miscellaneous Items

The "1/16" at the lower right hand of the illustration of *Great Auk* which follows, indicates that the picture is one-sixteenth the size of the real object. If an illustration is larger than the object, the ratio is expressed by the sign for *multiplication*, thus: x2 means that the picture is twice as large as the real object.

Notice that two pronunciations of *chimpanzee*, just below *Great Auk* are given. The first one entered is usually preferred. What number follows the last pronunciation? This number refers to paragraph 277, at the end of the *Guide to Pronunciation*, in the front of the dictionary, where an alphabetical list of words differently pronounced is given with the authority for each pronunciation. Whenever this number, or any other number, appears in connection with the pronunciation of a word, attention is called to the paragraph having the same number in the *Guide*, where details regarding some sound in the word will be found.

How many languages are mentioned in the derivation of *finger*? The meanings of the abbreviations of these languages can be found in *abbreviations* before the vocabulary. How many definitions are given under *finger*? After the last definition, give the meaning of the common expression, *to have a finger in*. What abbreviation, at the end of the very last phrase mentioned, indicates that the expression is colloquial? The word *fingers-and-toes* meaning a plant is dialectic in what country?

Selected Specimen Entries



Great Auk ($\frac{1}{16}$).

chim-pan'zee (chīm-pān'zē; chīm/pān-zē'; 277), *n.* [From the native name: cf. *F. chimpanzé*, *chimpanzé*, *chimpan-zée*.] An anthropoid ape (*Simia satyrus*, syn. *Anthropo-*

fin'ger (fīn'gēr), *n.* [AS. *finger*; akin to D. *vinger*, OS. & OHG. *finġar*, G. *finger*, Icel. *fingr*, Sw. & Dan. *finger*, Goth. *figgrs*; origin unknown.] 1. One of the five terminating members of the hand; a digit of the fore limb; specif., one of the four extremities of the hand other than the thumb. 2. Anything that resembles or does the work of a finger, as the pointer of a clock, watch, or other registering machine; esp., *Mach.*, a small projecting rod, wire, or piece, which is brought into contact with an object to effect, direct, or restrain a motion, as a pawl for a ratchet or any of the grippers that hold the paper in a printing press. 3. The breadth of a finger, or the fourth part of the hand; a measure of nearly an inch; a portion of liquor filling a glass to such a measure of depth; also, the length of a finger, a measure in domestic use in the United States, of about four and a half inches, or one eighth of a yard. 4. Skill in the use of the fingers, as in playing a musical instrument. *Rare*. "She has a good *finger*." *Busby*. 5. A part of a glove into which a finger is inserted. *finger and toe*. *Bot.* = CLUBROOT. — *fingers-and-thumbs*, or *fingers-and-toes*, bird's-foot trefoil. *Dial. Eng.* — *to have a finger in*, to be concerned in; to meddle with; hence, *to have a f. in the pie*, to be a participant in the mischief, a sharer in spoils, etc. — *to have at one's fingers' ends*, to be thoroughly familiar with. *Colloq.*

chī'na (chī'nā), *n.* 1. [*cap.*] A country in Eastern Asia. 2. (*pron.* chī'nā; formerly, and still dial. chīn'ī, chē'nī, and chā'nī, the last preferred by Walker c. 1800). Porcelain ware, or porcelain; — so called (orig. *chinaware*) in the 17th century, because brought from the far East, and differing from the pottery made in Europe at that time. Loosely, crockery in general. 3. *a* = CHINAROOT. *b* The sweet orange. *Porto Rico*. 4. *Com.* Short for CHINA SILK. *china ale*, ale flavored with chinaroot. — *C. aster*, a well-known garden plant of the genus *Callistephus*. See *ASTER*, *CALLISTEPHUS*. — *C. bean*, the cowpea. — *C. blue*. *Dyeing*. *a* Soluble blue. *b* A blue produced by printing on cloth with indigo, reducing, and reoxidizing, thus fixing the indigo in the fiber. This process has been used in the Orient for centuries. — *C. brier*, the bull brier. — *c. broth*, broth made with chinaroot. — *c. clay*, kaolin. — *C. crape*, crêpe de Chine. — *C. fish*, any fish of the family Ophichthidae (see SNAKE-HEAD MULLET). — *c. grass*, ramie. — *C. ink*, India ink. — *C. lake*, safranine. — *C. mark*, any of various moths of the genus *Hydrocampa* and allied genera, whose larvæ are aquatic, feeding on water plants. — *C. matting*, a kind of floor matting made in China, India, etc., from grass and reeds; — called also *India*, or *Canton matting*. — *c. metal*, porcelain or majolica. *Obs.* — *chī'na-met'alled* (-mēt'āld), *a*. *Obs.* — *C. orange*. = CHINA, 3 *b*. — *C. pea*, an Asiatic fabaceous shrub (*Caragana chamlagu*), the seeds of which are food for poultry. — *C. pink*, an annual or biennial pink (*Dianthus chinensis*) having variously colored single or double flowers; — called also *Indian pink*. — *c. ribbon*, a very narrow ribbon, one eighth of an inch wide, used in a kind of embroidery (*china-ribbon embroidery*), for bookmarks, etc. — *C. rose*. *a* Any of numerous garden varieties of rose derived from *Rosa chinensis*; — called also *Bengal rose*. *b* An Asiatic malvaceous shrub (*Hibiscus rosa-sinensis*) commonly cultivated in Oriental gardens for the large white or pink flowers, which contain an astringent juice used as a hair dye, and in Java for blacking shoes, whence it is sometimes called *shoeblack plant*. — *c. shell*. = EGG SHELL, mollusk. — *C. shot*, Indian shot. — *C. silk*, pongee or, by extension, a thin silk resembling pongee in texture, often colored and figured; also, a fabric with a silk warp and a cotton filling. — *C. silver*, a kind of plated nickel alloy resembling alfenide. — *C. squash*, the cushaw. — *c. stone*. *a* = KAOLIN. *b* = PETUNTSE. — *C. straw*, ramie. — *C. tree*, a handsome Asiatic meliaceous tree (*Melia azedarach*) planted as a shade tree throughout the southern United States and in tropical countries. It has dense pinnately compound leaves and large panicles of pink flowers succeeded by yellow drupes. The tree is known by many names, as *chinaberry*, *pride of India*, *pride of China*, *bead tree*, *Indian* or *Persian lilac*, *azedarach*, *holy tree*, etc. — *C. wax*. = CHINESE WAX. — *c. wedding*. See *WEDDING*, *Note*. — *C. withe*, a West Indian species of *Smilax* (*S. celastroides*).

Encyclopaedic Information

Notice that the word *china*, in the second column, begins with a small letter. What abbreviation under definition number 1 indicates that when the word refers to the country, it should begin with a capital letter? Definition number 4, relating to commerce, is short for what?

A vast amount of information, aside from the meaning and derivation of words, is given in modern dictionaries. Information, called *encyclopaedic*, because it resembles that found in encyclopaedias, is condensed after all entries have been given concerning the word most closely connected with the subject, unless it is important enough to have an entry of its own. Below definition number 4, under *china*, notice that the first entry, in very fine bold-faced type, is *china ale*, and that it is followed by a very brief definition. The second bold-faced type entry reads *C. aster*; the third, *C. bean*; the fourth *C. blue*. A capital *C* is used if the country China is referred to; otherwise a lower case *c* is used. Glance over the bold-face type entries, and notice that the words following *c. (china)* are in sub-alphabetical order. Give the reference which follows the sign = after *China orange*, noticing that each letter of the word referred to is a capital. When a reference is all capitals, the form referred to is preferable. Find this reference under subdivision *b* of definition number 3, in the main entry for *china*, above, and give the preferred name for *China orange*. What is the preferred name for *China wax*? Is the other name which is sometimes used for *China matting*, indicated as a preferred name? *China wedding* is explained in a note under what word? Should it begin with a capital, or with a lower case letter? Tell whether *C*, for *china*, before the following entries should be a capital or a lower case letter: *blue*; *clay*; *grass*; *silk*; *silver*.

Prefixes and Suffixes

Much pleasure and information will be gained if the habit is formed of looking up the derivation of words as occasion offers. Consider the few prefixes which follow: *un*, meaning opposite, when placed before a word gives it an opposite meaning, as *unkind*, *untrue*; *mis*, means wrong, consider *mistake*, *misunderstand*; *pre*- means before, what does *prefix* mean? These, and all other prefixes, can be found in the vocabulary. The entry which follows, under *com*-, is selected to illustrate how one prefix, in different forms, is united with root stems in the make-up of certain words. Read the full entry:

com-. A prefix from the Latin preposition *cum*, signifying *with, together, in conjunction, very*, etc. It is used in the form *com*- before *b, m, p*, and sometimes *f*, and by assimilation becomes *col*- before *l*, *cor*- before *r*, and *con*- before any consonant except *b, h, l, m, p, r*, and *w*. Before a vowel *com*- becomes *co*-; also before *h, w*, and sometimes before other consonants. See *co*-.

A corresponding study of suffixes is equally enjoyable. The entry under *-ness* follows, to show how carefully its place in word formation is defined. Notice, by adding *-ness* to certain adjectives, that a noun is formed which retains the quality of the adjective; as, for example, the adjective *fair*, with *-ness* added, becomes the noun *fairness*. *Tenderness*, *illness*, and many other illustrations might be given. Read the examples given in the entry, and also the note at the end.

A few other interesting suffixes are: *-hood*; *-ic*; *-ity*; *-able*; *-ion*; *-ant*; *-ful*; *-dom*.

All suffixes can be found in the vocabulary in alphabetical order.

-ness (-nēs; in colloq. speech the ē becomes nearly ĩ in ĩll). [AS. *-ness*, *-nyss*, *-nys*; akin to OS. *-nissi*, *-nussi*, D. *-nis*, OHG. *-nissa*, *-nassī*, *-nussī*, G. *-nis*, *-niss*, Goth. *-inassus*. The *n* (in) orig. was part of the stem, not of the suffix proper.] A suffix used primarily to form abstract nouns denoting in general *quality* or *state*; as in, *goodness*, *greatness*, *sickness*, *quality* or *state* of being good, great, sick. These nouns often have various specific senses, as that of: (1) a particular instance of the quality or state; thus, he showed them many *kindnesses*; (2) something exhibiting or causing the quality or state; thus, the villa stood in the midst of that *greenness*; His *Highness* was pleased; to rub off the *dimness* from a glass. The suffix forms a few nouns which are primarily concrete, as in *witness*. It is used chiefly with native adjectives, but now also with those of Latin origin, where, however, a suffix of Latin origin, as *-ity*, is in general preferred; as in *spiritualness*, for *spirituality*. See *Introd.*, *Rules for Spelling*.
 The reference "See -NESS" is sometimes given as the only definition of a word ending in *-ness*, if its meaning can readily be gathered from the definitions of the suffix and the root word.

The Appendix to Webster's New International Dictionary

Directly after the vocabulary proper, the appendix is given, in which appear the following sections: *Elements of pronunciation of foreign names*, p. 2375. *Geographical dictionary of the world*. *Biographical dictionary*. *Signs used in writing and printing*, such as: *Astronomical*, *Chemical*, *Botanical*, *Mathematical*, *Medical*, *Commercial*, *Musical*, *Proof-reading* and others.

Classified illustrations: At the end of the appendix, illustrations used throughout the vocabulary are collected and classified.

Geographical and Biographical Entries

Important places in the world having over 1000 inhabitants are entered in the appendix under the heading, *Pronouncing Gazetteer of the World*. Brief information regarding important persons in the world's work follows, under the heading, *Pronouncing Biographical Dictionary*. For illustrative purposes, a specimen entry from each is inserted.

Under the first entry of *Lincoln* in specimen from the *Gazetteer*, find the section of Arkansas in which *Lincoln County* in that state is located. The square miles in this county are indicated by what number preceding a square? About how many thousand people live in this county? What are the names of the two county seats, indicated by two crosses? The dash after *Varner* refers to another county by the name of Lincoln, in what part of Colorado? Notice that the word *Lincoln* is entered but once in heavy type, and that a dash is used each time another place by that name is listed. The largest political divisions in the United States are entered first, then the smaller ones, and then foreign places. In this case, the largest divisions are counties, which require nearly two-thirds

of the space. It would be very confusing to glance through this fine print to find some particular county in a state, unless some system of sub-arrangement could be discovered. The first county mentioned is in what state? The last county mentioned, eight lines from the end, is in Wisconsin. The states are evidently sub-arranged alphabetically. Give the number of square miles in Lincoln county in the following states: *Tennessee; Maine; Oklahoma*. After the *counties* are all listed, the *cities and towns* are given. Following the last *county*, which is in Wisconsin, a Lincoln *city* is given in what county of what state? What is the population of Lincoln, in Addison Co., Vermont? The next reference is to what other word in the Gazetteer? The reference following *Gaz.* gives the ancient name for Lincoln in what country? What is its population? What prominent building is located there? What word written in capital letters, following cathedral, is referred to in the general vocabulary of the dictionary for added information?

Specimen Entry from Pronouncing Gazetteer

Lincoln (līn'kŭn) co. SE Ark. 571 □ pop. 15, × × Star City & Varner.—co. E Col. 2,570 □ pop. 6, × Hugo. — co. NE Ga. 291 □ pop. 9, × Lincolnton. — co. S Ida. 3,283 □ pop. 13, × Shoshone. — co. N cen. Kan. 721 □ pop. 10, × Lincoln. — co. E cen. Ky. 338 □ pop. 18, × Stanford. — par. N La. 472 □ pop. 18, × Ruston. — co. S Me. 457 □ pop. 18, × Wiscasset. — co. S W Minn. 535 □ pop. 10, × Lake Benton. — co. S W Miss. 578 □ pop. 29, × Brookhaven. — co. E Mo. 607 □ pop. 17, × Troy. — co. N W Mont. 3,530 □ pop. 4, × Libby. — co. S W cen. Nebr. 2,536 □ pop. 16, × North Platte. — co. SE Nev. 10,511 □ pop. 3, × Pioche. — co. S N. Mex. 4,779 □ pop. 8. — its ×. — co. W N. C. 299 □ pop. 17, × Lincolnton. — co. cen. Okla. 959 □ pop. 35, × Chandler. — co. W Ore. 1,008 □ pop. 6, × Toledo. — co. E S. Dak. 574 □ pop. 13, × Canton. — co. S Tenn. 587 □ pop. 26, × Fayetteville. — co. E Wash. 2,302 □ pop. 18, × Davenport. — co. S W W. Va. 418 □ pop. 20, × Hamlin. — co. N Wis. 902 □ pop. 19, × Merrill. — city, Placer co. Cal. pop. 1. — city, × of Logan co. Ill. pop. 11. — city, × of Lincoln co. Kan. pop. 2. — vil. Penobscot co. Me. pop. 2. — town, Middlesex co. Mass. pop. 1. — city, * of Nebr. and × of Lancaster co. pop. 44; seat of Univ. of Nebraska. — town, Grafton co. N. H. pop. 1. — town, Providence co. R. I. pop. 10. — town, Addison co. Vt. pop. 1. — See LINCOLNSHIRE (*Gaz.*). — *anc.* LIN'DŪM, mfg. city & county bor. × of Lincolnshire, Eng. pop. 57; fine cathedral. See LINCOLN GREEN. — co. Ontario prov. Canada, * St. Catharines. — co. New South Wales, Australia, pop. 10.

Under the specimen entry from the *Biographical Dictionary*, below, find *Edwin Long*, and tell why he was prominent. Give the dates of his life. What section in the *Guide to Pronunciation* at the front of the dictionary is referred to for particulars regarding the sound of the letter o in his name? Give the dates of the life of *Henry Wadsworth Longfellow*. When was *John Davis Long* governor of Massachusetts? Was he living when this edition of the dictionary was issued? Should the *t* in the name *Longet* be sounded? What letter is given to indicate the sound of the *g* in this name?

Specimen Entry from Biographical Dictionary

Lombardi (lŏm-bär'dē), Alfonso. True name *Citadella*. Italian sculptor...1487—1537.
Lombroso (lŏm-brō'zō), Cesare. Italian physician and criminologist.....1836 —.
Loménie, de (dē lŏ'mā'nē'), Louis Léonard. French author.....1815—1878.
Lomonosov (lă'mă-nô'sŏf), Mikhail Vasilevich. Russian poet and gram. 1711—1765.
London (lŭn'dŭn), Jack. American story-writer.....1876 —.
Londonderry (lŭn'dŭn-dēr'i), Charles William Stewart, *later* Vane, third Marquis of. British general.....1778—1854.
Long (lŏng; 205), Edwin Longsdon. English painter.....1829—1891.
Long, George. English classical scholar.....1800—1879.
Long, John Davis. Gov. of Mass. (1880—1882). Sec. of navy (1897—1902)....1838 —.
Long, Roger. English divine and astronomer. [*Uranium*.].....1680—1770.
Long, Stephen Harriman. American engineer and explorer 1784—1864.
Longchamp (lŏng'shămp; -shăm), William of. Eng. prelate and statesman. ? —1197.
Longet (lŏn'zhě'), François Achille. French physician.....1811—1871.
Longfellow (lŏng'fēl'ō; 205), Henry Wadsworth. American poet 1807—1882.
Longhi (lŏn'gē), Giuseppe. Italian engraver.....1766—1831.
Longimanus (lŏn'jī-mā'nŭs). See ARTAXERXES I.
Longinus (lŏn-jī'nŭs), Dionysius Cassius. Greek philosopher and critic.... 213?— 273.
Longnon (lŏ'nyôn'), Auguste Honoré. French historical geographer 1844 —.

Reference History Edition of
Webster's New International Dictionary

A special edition of this dictionary gives, in the appendix, a valuable history of the world so condensed that it amounts to practically a dictionary of dates. The items are thoroughly indexed; any important fact in the world's history can be readily found. This edition is usually sold by subscription only.

Suggestions for Individual Practice

It would be well worth one's time to look up the following items at leisure, as an exercise for self-training in the ready use of *Webster's New International Dictionary*. For this purpose, more attention should be given to the arrangement of material than to the information itself. An excellent plan for becoming familiar with the nature of the supplementary sections before and after the vocabulary proper, is to open the dictionary at the *very* first page, glance, in a *general* way over each page, noting the sections, until the vocabulary is reached. Notice that the pages are numbered with Roman numerals. Examine, in a similar way, the sections *following* the vocabulary.

A number of the items below come in closely compacted encyclopaedic entries; such items are followed by "ency," and the words under which they are entered are printed in italics. If the entry is in the lower section, an L follows; A indicates appendix; F, the front of the dictionary; when no indication is given, look above the line of the vocabulary.

- | | |
|---|---|
| 1: ad infinitum—L | 22: per se—L |
| 2: Aladdin's lamp | 23: philosopher's stone |
| 3: Alma Mater | 24: Roman numeral for 800—A |
| 4: <i>apple</i> of discord—(ency) | 25: R. S. V. P.—L |
| 5: architecture (definition 2, ill.) | 26: viz.—L |
| 6: bibliography (definition 3) | 27: <i>wooden</i> horse (ency) |
| 7: <i>coins</i> used in different countries | 28: a—What are the letters on the
Yacht Club flag of Cleveland?
F |
| 8: <i>dark</i> horse (ency) | b—What is the population of
Cleveland? A |
| 9: e pluribus unum—L | 29: What is the central figure of the
national arms of Paraguay? F |
| 10: f. o. b.—L | 30: a—Find motto of Maine on state
seal. F |
| 11: <i>golden</i> Fleece (ency) | b—What does it mean? L |
| 12: <i>good</i> Samaritan (ency) | 31: a—In what year was Thomas
Edison born? A |
| 13: ib. or ibid.—L | b—In what year was Ferdinand
Foch born? (Addenda) |
| 14: laissez faire | 32: Meaning of Bolshevik (Addenda) |
| 15: Lethe (definition 1) | |
| 16: metric system | |
| 17: Micawber, Mr. Wilkins | |
| 18: Mother Goose | |
| 19: Odyssey (definition 1) | |
| 20: <i>old</i> South Church (ency) | |
| 21: op. cit.—L | |
- 33: Significance of the following common expressions; look, after the last definitions, under words in italics. Phrases are usually, though not invariably, under the verb.
- a: To *put* one's best foot foremost.
 - b: To *rub* the fur the wrong way.
 - c: To *let* the cat out of the bag.
 - d: To *go* through fire and water.
 - e: To *pay* dear for one's whistle. (*pay v. i.*)

An inexpensive abridgment of *Webster's New International Dictionary* is *Webster's Collegiate Dictionary*. The *Collegiate Dictionary* serves for *very general use only*.

Questions on The Last Edition of Webster's Dictionary

NOTE: Numbers in margin at right of questions below, give values on scale of 100%.

- 1—What is the exact title of the last edition of Webster's dictionary?.....2
- 2—What separates entries for general reference from those referred to less frequently?.....3
- 3—When a word has several meanings, is the earliest or the latest meaning entered first?.....2
(i. e. Are the meanings entered in historical order.)
- 4—When information is given in sub-entries under a leading word, as for *china* in the text, are these entries in historical or in alphabetical order?.....4
- 5—Write the abbreviations of the following when used in connection with the definition of words: abbreviation; dialectic; definition; compare; from; capital; lower case letter; Anatomy; except; Gazetteer. (Notice that two words begin with capitals).....2 each = 20
- 6—Are synonyms given before or after all definitions of the word?.....2
- 7—a: Is reformed spelling above or below the line? b: How is it marked?.....2 each = 4
- 8—Where is a condensed key for diacritical marks given?.....4
- 9—a: Are plurals given and pronounced if regular? b: If irregular?.....2 each = 4
- 10—Tell whether to turn to the front, or to the back, or to the general vocabulary for information such as the following: (Use F for front; B for back; V for vocabulary.)
a: State seals. b: Square miles in any country. c: Abbreviations used in defining words.
d: Abbreviations in common use. e: Characters in Greek mythology.
f: History of the English language. g: Flags of nations. h: Roman numerals.
i: Foreign phrases. j: Signs used in music. k: Phrases in common use. l: National arms.
m: Biographical entries. n: Geographical entries. o: New words.....2 each = 30
- 11—a: When the *Gazetteer* lists foreign places, counties, and cities by the same name, which are entered first? Which second? Which last?.....2 each = 6
b: Are counties and cities entered in order of size, or alphabetically by state?.....2
- 12—When any number follows the pronunciation of a word, attention is called to a paragraph having the same number in the *Guide to Pronunciation*. In what part of the dictionary is the *Guide* placed? 2
- 13—a: What do two vertical lines before a word mean?.....2
b: What sign appears after a word to indicate an old spelling (or obsolete, variant of)?.....2
- 14—If a recent word is not in regular vocabulary order, it can probably be found in what section, located where?.....3
- 15—a: Is the pronunciation of a word always given under each entry of it?.....2
b: Is the derivation always given under each entry?.....2
- 16—When a word is followed by a sign of equality and another word, each letter of which is a capital, is the word before or after the sign of equality preferred?.....4

Plan for Checking Work
When Training in the use of Reference Material
is organized as a
Required Feature of the Regular English Course

Schools which use these pamphlets as a required feature of their English courses will find it convenient to have a plan for marking the lesson. For this purpose a number appears after each question to indicate its value on the scale of 100%. Because this work requires but a few days each term, pupils are in danger of considering it unimportant unless it is carefully guarded. A reference question in examinations emphasizes the work. If a certificate of passing in an English course is not granted unless the work for the corresponding library pamphlet has been completed, the fact will be established in the pupil's mind that the school considers training in the use of reference books to be as necessary as is training in other educational lines.

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The pamphlet on *Webster's New International Dictionary* may be purchased at the rate of 10 cents per copy; in lots of fifty, for 8 cents each plus carriage, from the Publishers of the Dictionary.

G. & C. MERRIAM COMPANY,

SPRINGFIELD, MASS.

Other pamphlets, as listed in the *Foreword*, on the opposite page, may be purchased at the rate of 25 cents per copy; in lots of fifty, for 17½ cents each plus carriage, from

THE WILLARD COMPANY,

601 West Fort Street,

DETROIT, MICH.

NOTE: Arrangements have been made between The G. & C. Merriam Co. and the Willard Co. by means of which the lesson on Webster's New International dictionary can be sold much more cheaply than can the lessons on miscellaneous reference books. It is hoped that this plan will make it possible for schools to adopt at once the dictionary pamphlet, as a required text book for the first term of high school English work, and the other pamphlets later.

Foreword

This pamphlet is one of a series on the use of reference books. The complete series constitutes a third edition of *Reference Guides That Should be Known and How to Use Them*, which appeared first in 1916 in bound form as a text book for high and normal schools.

The third edition has revised and condensed the eleven pamphlets of the second edition into eight pamphlets, one for each of the eight high school courses in English, as listed below. The revised text can also be adapted to meet the needs of college freshmen who have had no special training in the use of reference tools. No important change has been made in the subject matter. Each pamphlet contains sixteen pages; even though the subject may be new, it should be mastered in a little more than an hour's time.

List of Pamphlets in the Series

Graded to correspond with High School English Courses

English 1—Webster's New International Dictionary.

English 2—Parts of a book: Concordances.

English 3—Encyclopaedias.

English 4—Library classification and card catalogue.

English 5—Year-books.

English 6—Indexes to periodical literature.

English 7—Commercial guides.

English 8—Government publications: city, state, and federal.

It might be well to give the entire series to high school seniors, if the work has not been organized grade by grade. College freshmen could do the work independently; so also could anyone needing reference tools, club workers, for example. A survey was recently made by the faculty of one of our state universities, concerning causes of failure in the freshman college year: four statements were formulated, one of which reads as follows: "Students should be trained to use ordinary means of securing information, such as: *the table of contents, the index, the dictionary, the encyclopaedia, the card catalog, the Readers' Guide to Periodical Literature, the newspaper, the informational magazine.*" It is therefore evident that a need exists for some plan of teaching the use of reference material which can be fitted into the crowded high school and college courses without undue intrusion or expense.

These simple lessons have been prepared in the hope that they will aid students to become familiar with standard reference material. The inclusion of specimen pages from the reference books studied makes it possible for each student to follow all illustrative examples without making a trip to a library and waiting to have access to the complete reference work. No library will furnish a sufficient number of copies of expensive reference books for this purpose; neither can a library afford to have pages in expensive reference books as badly worn and marked as this work would cause them to become.

Much dependence is placed upon the co-operation of the English departments when the work is given in high schools, each teacher of English being expected to devote about three recitation periods to the pamphlets which are graded to correspond with the respective English courses taught. In college, it would seem to be a very simple matter for the rhetoric department to plan to have their freshmen read these pamphlets early in the term, either as assigned class work, or independently, time being allowed, so that the work could be done without overpressure. Satisfactory results might be assured if students understood that at the first rhetoric examination a few leading questions selected from those on the inside of the back covers of the pamphlets would be asked.

According to the library code for capitalization all words in a title begin with a lower case letter instead of with a capital, except the first word, proper nouns, and adjectives derived from proper nouns. Certain specimen pages will show that some publishers follow this code.

*The following paragraphs are taken from the
Foreword of the First Edition*

Possibly the best way of presenting the points which it is hoped this series of lessons may emphasize is to quote directly from the preface of a Bulletin on "Library instruction in universities, colleges and normal schools," from the United States Bureau of Education, 1914—No. 34.

Many educators of note, as well as college and university librarians, have emphasized the urgent necessity of instruction and training in "book-using skill." . . .

The place of the library in the work of all departments is one of increasing importance. The library is a resource or reservoir from which the student should draw constantly for information and inspiration. . . . Every month of delay in instructing him in the meaning and use of the library lessens the efficiency of his course.

. . . Every new student should be required to take some course in which is given definite practical instruction in the handling of library tools. . . . Such a course, moreover, should not only be required, but it should constitute a definite part of the work required for a degree.

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Parts of a Book: Concordances

The arrangement of material in books usually has the following order, though it varies slightly:

- | | |
|-------------------------------------|---|
| a. Title. | f. Introduction. |
| b. Page for dedication, if desired. | g. Body of the work. |
| c. Preface. | h. Appendix; Commentary; Special notes; or other additions. |
| d. Table of contents. | i. Index or indexes. |
| e. List of illustrations or maps. | |

Title Page

The title page is the page on which appear:

- a. The full title of the work.
- b. Its author, editor or compiler, together with mention of any position, achievement, or scholarship which may serve to warrant the confidence of the public in his work.
- c. Number of editions through which the work has passed, if more than one. Sometimes a quotation appears.
- d. The publisher and the city in which the firm is located.

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Page of Dedication

When an author desires to pay special tribute to some pleasant memory, he often does so through the dedication of his book. If a page is used for this purpose, it follows the title page.

Preface

A Preface is a presentation of a book by the author himself to his reading public. It enables him to talk more familiarly with his readers than he otherwise could, and to thank any friends who may have aided him in the preparation

of the work. In the preface he usually tells what his aim was in writing the book and what he hoped to accomplish through it. It is often a very valuable part of a book and generally well worth reading. At the end of the preface, the author's name, or his initials, frequently appear at the lower right-hand side, and the date at the lower left-hand side. The pages are often numbered with Roman numerals to separate the preface from the pages of the book proper. The word *Foreword* is sometimes used if the work is very brief.

Table of Contents

The Table of contents gives the titles or subjects of the chapters, poems, or other matter contained in the book, listed in the order in which they appear. Frequently the chapters are so completely analysed that a large grasp of the general subject, or a review of it, can be gained by reading the headings. The table of contents is sometimes paged with the book proper; sometimes it is paged with Roman numerals.

A specimen entry from the Table of contents of "Universal Literature" by Botta, is given below to illustrate how completely the chapters are analyzed. Consult it, and answer the following questions:

- a. On what page, in Roman numerals, does the "List of authorities" begin? On what page, in Arabic numbers, does the "Introduction" begin? Would page XV (Roman numerals) appear in the book before or after page 1 in Arabic numbers?
- b. Below the *Introduction*, read the main topics in the center of the page.
- c. Is the language of the nations usually considered by this author in connection with its literature?
- d. Tell from what country the Sanskrit literature comes, by consulting topic 2 under it. Name the leading sacred books of this country, under topic 4.

A specimen entry from Table of Contents of
Handbook of Universal Literature by Botta
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Body of the Work

The body of the work consists of few or of many pages, or of one volume, or more, according to the plan of the author or the publisher.

Sometimes an asterisk (*) or a dagger (†) or a number, or a letter, appears in the text to call attention to a note at the foot of the page.

Appendix or Other Additions

The Appendix, the Special notes, the Commentary, or other additions consist of explanatory material or enlargement upon the subject-matter of the book.

The Index or Indexes

An index is an alphabetical arrangement of the topics in the book, with page references. To prepare an index requires much care, as every page must be read with reference to the index, each item written on a separate card, and the cards arranged alphabetically.

An index is found in one of the following positions:

- a. Usually at the back of a one volume work.
Strictly business books are frequently indexed at the front.
- b. Usually at the back of the last volume, if the work is in several volumes.
- c. When a set of books consists of many volumes, the index is likely to require most, or all of the last volume.
- d. More than one index is sometimes desirable. In collections of poems, especially, several indexes may be found; one index of the titles, another of first lines, another of authors.
- e. If an index has any special features or abbreviations not common to all indexes, look for a note of explanation at the beginning of the index.

Try to realize why an index to this page might be as follows:

Abbreviations, used in index	5	Index, where placed	5
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When convenient, it would be a good exercise to index some page in a text-book. When studying a book well indexed, occasionally see if the main subjects on some one page are in the index.

**A Study of the Specimen Page below of the Index to Introduction
to American Literature by Pancoast**

A Work in One Volume

1. In which part of this one volume work is the index found?
2. The entry under "Emerson" follows which entry?
3. Which entry follows "Emerson?" (Note the space required for references under Emerson.)
4. Which is the first page referred to under "Emerson," and what punctuation mark follows it?
5. Which is the first page under "Emerson," followed by a dash? This dash indicates that "Emerson" is the subject considered from which page to which page? Between which pages does the next dash appear?
6. On which pages are the following topics under "Emerson" discussed: Concord Hymn? American Scholar? Brook Farm?
7. Find "Europe, influence on American literature," in the index, and give the first pages connected with a dash. Give the second, so connected.
8. Find "English influence" in the index, and give the pages for consecutive reading, as indicated by a dash.

**Specimen entry from the index at the back of
Introduction to American Literature by Pancoast**

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A Study of the Specimen Page below of the Index to
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A Work in Three Volumes

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1. The number of the volume is not repeated every time reference is made to it. If no volume follows the page, the reference is to the last mentioned volume. In *this* index, references to volume I come first; to volume II, next; and to volume III last.
2. Longfellow's name is abbreviated "L." throughout the index.
3. This work is in three volumes. In which volume, and in which part of it, is the index found?
4. The first reference under Dickens is, "L. entertains." This means that an account of how Longfellow entertained Charles Dickens, is found in volume I on page 279.
5. Give the volumes and pages for the following under Dickens:
 - a. Letters to Longfellow from Dickens.
 - b. Longfellow describes household and friends of Dickens.
 - c. Third visit of Dickens to America.
 - d. Longfellow on the death of Dickens.
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**A Study of the Specimen Page From the Index to
England in the Eighteenth Century by Lecky
A Work in Eight Volumes**

The abbreviation "ib." is frequently used in the index on the opposite page. This abbreviation comes from the Latin word "ibidem," meaning in exactly the same place as the last mentioned. (It is often abbreviated "ibid." in other reference books.)

The abbreviations "sq." and "sqq." are also used in this index. These abbreviations come from the Latin word "sequens," which means "following." "Sq." is singular, and signifies that one page follows the reference; "sqq." is plural, and signifies that more than one page follows.

1. Under Whitefield, George, give the abbreviation which follows "among colliers." Give the volume and page indicated in this reference.

2. Find Whitefield's "eloquence as a popular preacher," and give the abbreviation which indicates that several pages follow page 617. Reference is made to which volume?

3. Under Whiteboys, "denounced by Catholic clergy," the reference is to which volume? What indicates that the reference covers fewer pages than "outrages not sectarian," just preceding it? The reference following it, "Protestants among Whiteboys" is followed by the letter "n," referring to a "note." In which volume and on which page does the note appear?

4. Consult the first column, under "Whigs," near the middle, and give the volume and page for "chief elements of party-aristocracy."

5. Find, near the end of the entry under "Whigs," "true character of the party," and give the volume and page to which reference is made.

The entry given below illustrates an index which does not use a dash or sqq. to indicate consecutive reading, but instead uses the letters, "ff," for following pages. The most important pages are marked by an asterisk (*).

Name the page, marked by an asterisk (*) on which the fullest account of Plato begins. Note that "ff" follows it.

Name other pages which are followed by "ff," indicating that the reference covers more than two pages. Are these pages as important as those indicated by the asterisk and "ff?"

Name one page followed by a single "f," indicating that only one page follows. Consecutive reading on Plato would not be found on any of the pages in the first line, but his name would appear on each page in connection with some other subject.

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In some indexes the most important pages are printed in heavy type.

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A Study of the Specimen Page below of the Index to
Harvard Classics (Dr. Eliot's Five-Foot Shelf)

A Work in Fifty Volumes

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This work is in fifty volumes. Almost all of the last volume is required for the index.

The references are sub-arranged alphabetically in this index; under "Books," for example, a reference to what "Confucius" says about books is sub-arranged under C, what "Locke" says, under L, etc.

Give the volumes and pages for the following:

a. Under Books, sub-alphabetical under "t" find "transcripts of their times" and notice two series of pages. Which pages give the longest consecutive reference? Give the volume referred to.

b. Give volume and page for "prefaces" of books?

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Index of Authors. Index of First Lines. Index of Titles.

The following specimen pages are taken from the indexes of a book entitled "Every Day in the Year," compiled by James Ford. Each index refers to a poem by H. C. Bunner, entitled "The Last of the New Year's Callers," the first line of which is, "The door is shut—I think the fine old face."

Consult the "author index" and tell how many other poems by the same author are included in the book.

All first line indexes are arranged with reference to the very first word of the line, even though that word be an article, as "The," "A," or "An;" words following an article are in sub-alphabetical order. Find the first line, "The door is shut- I think the fine old face," in the "index of first lines," in the first column of page 12, and give the page referred to.

A "title index" always disregards the article. Find the title of this poem, "The Last of the New Year's Callers," in the "title index" in the second column of page 12, and tell how the entry indicates that the title properly begins with "The."

Specimen Entry from Ford: Every Day in the Year

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Concordances

A concordance is simply a very complete index, confined to *words* used by an author. It is designed to help one to find just where a quotation occurs in an author's work, even though only a part of the quotation is known. Cru-
den's Concordance to the Bible was the first concordance ever published (1737).

A few very prominent authors such as Shakespeare, Wordsworth, Milton, Tennyson, have individual concordances for their works.

Books of quotations collected from many authors usually have a very complete index of all important words in the quotations selected.

Among the many good books of quotations there are at least two with which one should be familiar:

Bartlett: Familiar Quotations.

Quotations are collected under authors. Some Bible quotations are included.

Hoyt: Cyclopaedia of Quotations.

Quotations are collected under subjects. Bible quotations are omitted.

A new and enlarged edition of **Hoyt**, including quotations from recent authors, has lately been issued. Many quotations from the Bible are included in the new edition.

The pages which follow are inserted to illustrate how a concordance is to be used. They are taken from the old edition of *Hoyt*.

Imagine one wishing to find the author of the quotation:

“Hark! hark! the lark at heaven's gate sings.”

If the author is not known, a book of miscellaneous quotations should be consulted, though the quotation may or may not be found in such a collection. It can always be found in the author's complete concordance, in case the author is known, and a concordance of his works has been published. It is difficult, however, to use a very full concordance, because of the many entries.

This quotation can be found in a number of collections. Specimen entries from *Hoyt's Cyclopaedia of Quotations* are reproduced. Any leading word may be selected to look under; *hark, heaven's, lark, gate* or *sings*. The page containing the word *lark* is the one used for illustrative purposes.

Notice on the specimen page from the index, which follows, that the catch words under lark are in sub-alphabetical order, and that the word lark is not always repeated, but is frequently represented by the letter "l." Under lark, sub-alphabetical order "the lark," the third catch words are in alphabetical order. Find the catch words, "the l. at," give the page referred to, and the letter following the page. The letter "h" after 49 refers to the position of the quotation on page 49. The asterisk (*) indicates that the quotation is from the author indicated by the asterisk (*) at the bottom of the page. Give his name. What author is indicated by **? Notice signs at the bottom of the page used for other authors.

A specimen entry from page 49 of *Hoyt's Cyclopaedia of Quotations* is given on page 16 of this pamphlet. Turn to it and notice that the quotations are lettered in order, from "a" to "s", just before the author's name. Also notice that the authors are in alphabetical order, beginning with "M" "Milton." Shakespeare's name, being so familiar, is not printed; but quotations from his works come under 'S' sub-alphabetical by titles of the plays. Find "h" and give the act, scene, and line from which this quotation comes in a song in the play of *Cymbeline*. All of the quotations on this page from Hoyt refer to what subject and what division of it as indicated at the top of the page?

Turn again to the index under lark, sub-alphabetical "up springs the lark, shrill," and give the letter on page 49 under which the quotation is placed. Turn to the specimen entry of page 49, find the quotation, and give the author, poem, and line cited. By a similar method find the authors, poems and lines for the following quotations:

"Sky-poised lark."

"Gentle lark, weary of."

Under the word "language" in the index, sub-alphabetical "w," find "with no language but a cry," and find the author's name which is at the bottom of the page, preceding the sign indicated.

Trace the following in a similar way:

"Old landlord's hospitable door."

"Stick to *the* last" (not your).

"Nothing is too late, till the."

A Specimen Entry from the Index to Hoyt's Cyclopaedia of Quotations

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LAND.

LAUGH.

989

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SHAKESPEARE *; MILTON **; WORDSWORTH †; BYRON ‡; TENNYSON †; LOWELL ††; POPE ‡; LONGFELLOW §.

Specimen Entry from Hoyt's Cyclopaedia of Quotations

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BIRDS—LARK.

BIRDS—LARK.

49

To hear the lark begin his flight,
And singing startle the dull Night,
From his watch-tower in the skies,
Till the dappled dawn doth rise.

a. MILTON—*L' Allegro*. L. 41.

The bird that soars on highest wing,
Builds on the ground her lowly nest;
And she that doth most sweetly sing,
Sings in the shade when all things rest :
In lark and nightingale we see
What honor hath humility.

b. MONTGOMERY—*Humility*.

I said to the sky-poised Lark :

"Hark—hark !

Thy note is more loud and free
Because there lies safe for thee
A little nest on the ground."

c. D. M. MULOCK—*A Rhyme About Birds*.

No more the mounting larks, while Daphne
sings,

Shall, list'ning, in mid-air suspend their wings.

d. POPE—*Pastorals*. Winter. L. 53.

O earliest singer ! G care-charming bird !
Married to morning, by a sweeter hymn
Than priest e'er chanted from his cloister dim
At midnight,—or veiled virgin's holier word
At sunrise or the paler evening heard.

e. ADELAIDE PROCTER—*The Flood of Thessaly*.

O happy skylark springing
Up to the broad, blue sky,
Too fearless in thy winging,
Too gladsome in thy singing,
Thou also soon shalt lie
Where no sweet notes are ringing.

f. CHRISTINA G. ROSSETTI—*Gone Forever*.
St. 2.

The sunrise wakes the lark to sing.

g. CHRISTINA G. ROSSETTI—*Bird Raptures*.
L. 1.

Hark ! hark ! the lark at heaven's gate sings,
And Phoebus 'gins arise,
His steeds to water at those springs
On chalic'd flowers that lies.

h. *Cymbeline*—Act II. Sc. 3. *Song*.
L. 21.

It is the lark that sings so out of tune,
Straining harsh discords and unpleasing
sharps.

i. *Romeo and Juliet*—Act III. Sc. 5.
L. 27.

It was the lark, the herald of the morn.

j. *Romeo and Juliet*—Act III. Sc. 5.
L. 6.

Lo ! here the gentle lark, weary of rest,
From his moist cabinet mounts up on high,
And wakes the morning, from whose silver
breast

The sun ariseth in his majesty.

k. *Venus and Adonis*—L. 853.

Some say, that ever 'gainst that season comes
Wherein our Saviour's birth is celebrated,
The bird of dawning singeth all night long :
And then, they say, no spirit dare stir
abroad ;

The nights are wholesome ; then no planets
strike,
No fairy takes, nor witch hath power to
charm,

So hallow'd and so gracious is the time.

l. *Hamlet*—Act I. Sc. 1. L. 158.

Then my dial goes not true ; I took this lark
for a bunting.

m. *All's Well That Ends Well*—Act II.
Sc. 5. L. 5.

Better than all measures
Of delightful sound,

Better than all treasures

That in books are found,

Thy skill to poet were, thou scorner of the
ground !

n. SHELLEY—*To a Skylark*.

Sound of vernal showers

On the twinkling grass,

Rain-awakened flowers,

All that ever was

Joyous, and clear, and fresh, thy music doth
surpass.

o. SHELLEY—*To a Skylark*.

Up springs the lark,
Shrill-voiced, and loud, the messenger of
morn ;

Ere yet the shadows fly, he mounted sings
Amid the dawning clouds, and from their
haunts

Calls up the tuneful nations.

p. THOMSON—*The Seasons*. Spring.
L. 587.

The lark sung loud ; the music at his heart
Had called him early ; upward straight he
went,

And bore in nature's quire the merriest part,
As to the lake's broad shore my steps I bent.

q. CHARLES TENNYSON TURNER—*Sonnet*.
An April Day.

The lark that shuns on lofty boughs to build
Her humble nest, lies silent in the field.

r. EDMUND WALLER—*Of the Queen*.

Ethereal minstrel ! pilgrim of the sky !

Dost thou despise the earth where cares
abound ?

Or, while the wings aspire, are heart and eye
Both with thy nest upon the dewy ground ?

Thy nest which thou canst drop into at will,
Those quivering wings composed, that music
still !

s. WORDSWORTH—*Poems of the Imagination*. *To a Skylark*.

Questions for Parts of a Book: Concordances

NOTE: Numbers in margin at right of questions below, give values on scale of 100%.

- 1—a. Where is the copyright date usually entered in a book?
b. From what office, located where, is a copyright secured?
c. If the date below the publisher's name is later than the copyright date, has the book as a whole been revised, or merely reprinted at the later date?.....5 each=15
- 2—In what part of a book does an author usually state his reasons for writing it?.....=5
- 3—Where is the index usually placed when the work is in:
a. One volume?
b. In two or more volumes?.....5 each=10
- 4—Is an index always in one alphabet, or are there sometimes separate indexes for separate needs?=5
- 5—“The royal feast was done,” is the first line of a poem by James Rowland Sill, the title of which is “The Fool’s Prayer.” To what word in alphabetical order should one turn to find the poem through:
a. A title index? b. An author index? c. A first line index?..5 each=15
- 6—What do the following abbreviations mean: sq. sqq?.....=5
- 7—What is sometimes used between pages to show that the reference includes all the intervening pages?.....=5
- 8—If an index has some special features or abbreviations not common to all indexes, where are they usually explained?.....=5
- 9—a. Where does a general outline of the subject treated in a book appear?
b. Where should one turn to find some one item in the book?.....5 each=10
- 10—One reference from the specimen page of the index to Lecky’s England in the Eighteenth Century reads as follows:
Whitefield, George: early life and character; II: 600; visits Georgia, 605; in London 613; character and genius, ib.
Give the volume and page for the reference “character and genius.”=5
- 11—What is a concordance?=5
- 12—Under what words would the following quotation from the Bible be entered in a good Bible concordance? “The price of wisdom is above rubies.”.....=5
- 13—If a quotation by Alexander Pope is desired, would it be better to use Bartlett’s Quotations or Hoyt’s? Why?.....=5
- 14—If a quotation on the subject of friendship is desired, would it be better to use Bartlett’s Quotations or Hoyt’s and why?.....=5

**Plan for Checking Work
When Training in the use of Reference Material
is organized as a
Required Feature of the Regular English Course**

Schools which use these pamphlets as a required feature of their English courses will find it convenient to have a plan for marking the lesson. For this purpose a number appears after each question to indicate its value on the scale of 100%. Because this work requires but a few days each term, students are in danger of considering it unimportant unless it is carefully guarded. A reference question in examinations emphasizes the work. If a certificate for passing in an English course is not granted unless the work in the library pamphlet for that course has been completed, the fact will be established in the student's mind that the school considers training in the use of reference books to be as necessary as is training in other educational lines.

Reference Guides
That Should be Known and
How to Use Them

no. 32

By
Florence M. Hopkins
Librarian
Central High School, Detroit, Michigan



*This Pamphlet Pertains to
Encyclopaedias*

THIRD EDITION

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FLORENCE M. HOPKINS

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The pamphlet on *Webster's New International Dictionary* may be purchased at the rate of 10 cents per copy; in lots of fifty, for 8 cents each plus carriage, from the Publishers of the Dictionary.

G. & C. MERRIAM COMPANY,

SPRINGFIELD, MASS.

Other pamphlets, as listed in the *Foreword*, on the opposite page, may be purchased at the rate of 25 cents per copy; in lots of fifty, for 17½ cents each plus carriage, from

THE WILLARD COMPANY,

601 West Fort Street,

DETROIT, MICH.

NOTE: Arrangements have been made between The G. & C. Merriam Co. and the Willard Co. by means of which the lesson on Webster's New International dictionary can be sold much more cheaply than can the lessons on miscellaneous reference books. It is hoped that this plan will make it possible for schools to adopt at once the dictionary pamphlet, as a required text book for the first term of high school English work, and the other pamphlets later.

Foreword

This pamphlet is one of a series on the use of reference books. The complete series constitutes a third edition of *Reference Guides That Should be Known and How to Use Them*, which appeared first in 1916 in bound form as a text book for high and normal schools.

The third edition has revised and condensed the eleven pamphlets of the second edition into eight pamphlets, one for each of the eight high school courses in English, as listed below. The revised text can also be adapted to meet the needs of college freshmen who have had no special training in the use of reference tools. No important change has been made in the subject matter. Each pamphlet contains sixteen pages; even though the subject may be new, it should be mastered in a little more than an hour's time.

List of Pamphlets in the Series

Graded to correspond with High School English Courses

English 1—Webster's New International Dictionary.

English 2—Parts of a book: Concordances.

English 3—Encyclopaedias.

English 4—Library classification and card catalogue.

English 5—Year-books.

English 6—Indexes to periodical literature.

English 7—Commercial guides.

English 8—Government publications: city, state, and federal.

It might be well to give the entire series to high school seniors, if the work has not been organized grade by grade. College freshmen could do the work independently; so also could anyone needing reference tools, club workers, for example. A survey was recently made by the faculty of one of our state universities, concerning causes of failure in the freshman college year: four statements were formulated, one of which reads as follows: "Students should be trained to use ordinary means of securing information, such as: *the table of contents, the index, the dictionary, the encyclopaedia, the card catalog, the Readers' Guide to Periodical Literature, the newspaper, the informational magazine.*" It is therefore evident that a need exists for some plan of teaching the use of reference material which can be fitted into the crowded high school and college courses without undue intrusion or expense.

These simple lessons have been prepared in the hope that they will aid students to become familiar with standard reference material. The inclusion of specimen pages from the reference books studied makes it possible for each student to follow all illustrative examples without making a trip to a library and waiting to have access to the complete reference work. No library will furnish a sufficient number of copies of expensive reference books for this purpose; neither can a library afford to have pages in expensive reference books as badly worn and marked as this work would cause them to become.

Much dependence is placed upon the co-operation of the English departments when the work is given in high schools, each teacher of English being expected to devote about three recitation periods to the pamphlets which are graded to correspond with the respective English courses taught. In college, it would seem to be a very simple matter for the rhetoric department to plan to have their freshmen read these pamphlets early in the term, either as assigned class work, or independently, time being allowed, so that the work could be done without overpressure. Satisfactory results might be assured if students understood that at the first rhetoric examination a few leading questions selected from those on the inside of the back covers of the pamphlets would be asked.

According to the library code for capitalization all words in a title begin with a lower case letter instead of with a capital, except the first word, proper nouns, and adjectives derived from proper nouns. Certain specimen pages will show that some publishers follow this code.

*The following paragraphs are taken from the
Foreword of the First Edition*

Possibly the best way of presenting the points which it is hoped this series of lessons may emphasize is to quote directly from the preface of a Bulletin on "Library instruction in universities, colleges and normal schools," from the United States Bureau of Education, 1914—No. 34.

Many educators of note, as well as college and university librarians, have emphasized the urgent necessity of instruction and training in "book-using skill." . . .

The place of the library in the work of all departments is one of increasing importance. The library is a resource or reservoir from which the student should draw constantly for information and inspiration. . . . Every month of delay in instructing him in the meaning and use of the library lessens the efficiency of his course.

. . . . Every new student should be required to take some course in which is given definite practical instruction in the handling of library tools. . . . Such a course, moreover, should not only be required, but it should constitute a definite part of the work required for a degree.

Encyclopaedias

Though all general encyclopaedias have the one purpose of giving some information on almost every subject, and of arranging the subjects in alphabetical order, yet we should realize that each encyclopaedia has its individual scope. One should be alert to such points as the following when consulting encyclopaedias:

- a Methods of dividing large subjects.
- b The probability of a long or of a short article.
- c The effect of the date on the article.
- d Popular or technical treatment of scientific subjects.

If one were looking for an encyclopaedic article on some city in the United States, it would be better to turn to an American Encyclopaedia rather than to an English one.

The word *cyclopaedia*, practically a synonym of encyclopædia, is sometimes used when a work does not include all subjects, but only topics relating to some one subject; Cyclopaedia of engineering, for example. The word *dictionary* is also frequently used, as a Dictionary of music, a Dictionary of medicine, a Classical dictionary.

We are so accustomed to encyclopædias and dictionaries that it is difficult for us to realize that the great reference books which we now have in this form are the result of years of experience. The last edition of the *Encyclopaedia Britannica* has thirty-two large volumes. The first edition of this work was issued by a "Society of Gentlemen from Scotland," and appeared about one hundred and fifty years ago, in three volumes. The three volumes of the first edition were then considered as exhaustive as are now the thirty-two volumes of the twelfth edition.

Alphabetical Order of Articles and Volumes

The main subjects are usually arranged in alphabetical order, and are readily found by means of the letters printed on the outside of the volumes. Consult the picture of the *Britannica* which follows, and notice that the lower line of letters on each volume is usually the same as the upper line on the volume following it. This is not designed, but it cannot be avoided if only three letters are used, as articles are separated with reference to making the volumes approximately the same size, and not with reference to the exact alphabetical division of subjects. Can one tell from the letters whether *Charles I of England* comes in volume V or in volume VI? Give the numbers of the volumes which contain articles on the following: *Turkey; Rome; Abraham Lincoln; Africa*. Carefully read the note below the illustration.

The *New International Encyclopaedia* uses as many letters on the outside of the volumes as are necessary to indicate just where in the alphabet the volume begins and ends. Notice, in the line near the top of page 5, which represents



An illustration of the Encyclopaedia Britannica.

The Three Volumes below cover information for the important decade of 1911-1921 and bring the earlier 29 volumes practically up to date.

volumes in the *New International Encyclopaedia*, that more than three letters are used, and that the letters on the bottom line of a volume are not repeated on the top line of the volume following it. Can one tell immediately in which volume of the *New International* an article on *Charles I of England* comes? If only three letters, under *Cha*, were printed on the back, could one tell the exact volume for *Charles I*? This plan appears awkward until one is familiar with it.

Vol. I	Vol. II	Vol. III	Vol. IV	Vol. V	Vol. VI	Vol. VII
A	Archai	Beed	Buck	Chaucer	Cory	Domi
Archae	Beec	Buch	Chat	Corv	Dome	Euth

Signed Articles

No matter how well educated a person may be, it would be impossible for him to write all of the articles for a good modern encyclopædia; such a work requires the co-operation of hundreds of scholars. The general character of the encyclopædia is under the direction of editors, but the important articles are written by specialists in the different subjects. Some of the articles in the best encyclopædias are so extensive and scholarly that they would make good standard books on the subjects, if they were published in book form. As we are not apt to regard the authors of articles in an encyclopædia as seriously as we do authors of books, we are in danger of losing a full realization of the fact that the value of encyclopædias as well as of books is determined largely by their authors. In a book, the author's name appears on the title page; in an encyclopædia, the name is usually given at the end of the article, or at the front of the volume in which his contribution appears. In the *Encyclopaedia Britannica*, the author's initials appear at the end of the article, and his full name at the front of the volume; in the *New International Encyclopaedia* the name of the author or editor appears in the *Table of Contents* at the front. When the authors of important articles in encyclopædias are given, the encyclopædia is said to contain *signed articles*. Articles of minor importance are not usually written by specialists, and are therefore not *signed*. No encyclopædia can be of high standing which does not contain a fair percentage of articles which are either written or edited by *signed* authorities.

Best Books Listed: Bibliography

An encyclopaedic article is not an exhaustive treatise of the subject consulted, but simply a general outline of it, more or less complete according to the purpose of the editors. However, after the general treatment, in good encyclopaedias, the reader is frequently referred to the best books and articles which have been written upon the subject, in case he wishes to read more about it. When such a list of references appears, it is given in the last paragraph under the article, and is headed by one of the following words, or its equivalent: *Consult; Authorities; References; See; Literature; Bibliography*. Illustrations will be given later by means of specimen entries. Learn to spell *Bibliography*.

Important Encyclopaedic Features

Illustrated by Specimen Entries

Three important modern encyclopædias have been selected to illustrate general and special encyclopaedic features:

Encyclopædia Britannica—32 volumes

New International Encyclopædia—24 volumes and year-books

Nelson Perpetual Loose-leaf Encyclopædia—12 volumes

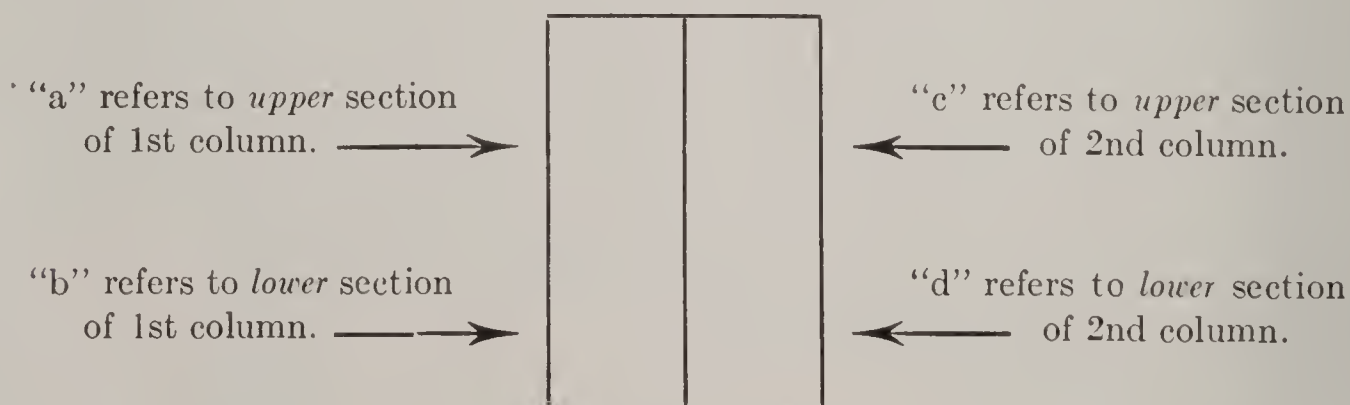
The Americana Encyclopaedia is an excellent work; no specimen page is taken from it.

Encyclopaedia Britannica

Index Feature

One cannot use the *Encyclopaedia Britannica* to the best advantage without thoroughly understanding its very exhaustive index. The index to the eleventh edition is so extensive that it requires an entire volume. Every item of any importance whatsoever which has been mentioned anywhere in any of the volumes of the set, is listed in this index in alphabetical order, and is followed by the volume and page which gives information concerning the topic. This encyclopædia is printed with two columns on a page. An “a” after a page in the index indicates that the information begins in the upper half of the first column of that page; “b” refers to the lower half of the first column; “c” to the upper half of the second column; and “d” to the lower half of the second column.

To illustrate:



These letters, a, b, c, d, do not appear on the pages of the Encyclopaedia.

A specimen entry from the index to the *Encyclopaedia Britannica* is inserted on the following page. Consult it, and give the volume, page, column and part of the column for the first reference under *Architecture*. Give the same for the second and third references mentioned under *Architecture*. Notice that in the references which follow, the articles are under countries and topics, beginning with *Abyssinian*, and that they are sub-arranged in alphabetical order. Find *Hittite remains*, and give the volume, page, column and part of column in which the reference concerning them begins.

The volume which follows the first reference given under any subject in the index always refers to the main article on that subject. Main articles can be found more readily by means of the letters on the backs of the volumes than by means of the index, but information which is scattered under a number of different headings, or which is not important enough to have a separate heading of its own, can best be found through the index. Turn back to the picture of the complete set of the *Britannica* and, by means of the letters on the outside of the volumes,

Specimen Entry from the Index of the Encyclopaedia Britannica

Archibald (the Grim): *see* Douglas, Archibald Douglas, earl of.
—, Sir Adams G. 5-160c.
—, E. D.: caesium 4-944c; kites 18-280a.
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Archibuteo lagopus: *see* Rough-legged buzzard.
Archicamerarius: *see* Erzkämmerer.
Archicancellarius: *see* Arch-chancellor.
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—, La. 17-54 (b5).
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Arctoidea 5-370c; 13-445a.
Arctomys: *see* Marmot and Woodchuck.
— bobac: *see* Bobac.
— caudata: *see* Red marmot.
— marmotta: *see* Alpine marmot.
— monax: *see* Wood-chuck.
Arctonnesus, penin., Asia M.: *see* Kapu-Dagh.
Arctonyx: *see* Sand-badger.
— collaris: *see* Bali-soor.
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ARCTURUS 2-447d; 25-788b; 25-790a; 7-12 (map); spectrum 21-717 (Plate).
— minor: *see* Boötes.
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Arcuate ligaments 8-166c.
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— Cachan, Fr.: *see* Arcueil.
Arcueil, Society of 3-812c.
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Arculi, aqueduct, Fr.: *see* Arcus Juliani.
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Arcus Juliani, aqueduct, Fr. 2-447d.
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Arcy, Chevalier d' 3-277d.
Arcyria 19-108d; 19-108d (fig.).
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Arc bay, Ire. 14-744 (B3).
— lake, Scot. 24-418 (C2); 1-52d.
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— (Hadra), riv., It. 15-26 (B2).
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Ardagh, Ire. 14-744 (D3); 14-774b.
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Ardahal, Pers. 21-189b.
—, dist., Pers. 15-945a.

Ardahan, Cauc. 23-874 (II. C3); 15-682d; Russian occupation 23-931a, 17-8d, 3-791c.
Ardakan, Pers. 21-188 (B2); statistics 10-190a.
—, dist., Pers. 28-919c.
Ardal, Pers. 21-188 (B2).
Ardara, Ire. 14-744 (C2); 8-413d.
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Ardatov, Russ. (Nizhny-Novgorod) 23-872 (F4); geology 19-720d.
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Ardehatten, Scot. 8-684b.
Ardehyle, Scot. 24-418 (C2).
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Ard-comarba (Irish church): *see* Coarb.
Ardeconnel, Scot. 24-418 (A2).
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Ardea (zool.) 13-386d; 13-388b.
— (agami): *see* Heron agami.
— (alba): *see* Great egret.
— (bubulcus): *see* Buff-backed heron.
— (candidissima): *see* White heron.
— (cinerea): *see* Heron, common.
— (egretta): *see* Egret.
— (garzetta): *see* Little egret.
— (helias): *see* Peacock heron.
— (herodias): *see* Great blue heron.
— (megacephala) 17-913b.
— (purpurea): *see* Purple heron.
— (rallioides): *see* Squaccoheron.
— (virescens): *see* Green bittern.
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Ardeal, state, Hung.: *see* Transylvania.
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ARDEBIL (Ardabil), Pers. 2-449b; 21-188 (A1); holy carpet 5-396 (Plate).
—, dist., Pers. 2-449b.
ARDECHE, dept., Fr. 2-449c; 10-778 (G5).
—, riv., Fr. 10-778 (G5); 23-272b.
ARDEE, Ire. 2-450a; 14-744 (E3).
Ardeidae: *see* Heron.
Ardelan, dist., Pers. 21-188 (A2); 15-951c.
—, tribe 15-949c.
Ard el Bathaniyeh, dist., Syr.: *see* Batanaca.
Ard-el-Huleh, tract, Pal.: *see* Hulch.
Ardell, Ala. 1-460 (B1).
Arden, Mary 2-450b.
—, Robert 24-772d.
—, William, 2nd baron Alvanley: *see* Alvanley.
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—, Can. 20-114 (E1).
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—, N.C. 19-772 (B4).
—, Scot., geology 23-99a.
—, Wash. 28-354 (G-II1).
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—, mt., S. Aus. 25-493b.
Ardenay, Fr. 16-409c.

Ardencaple, inlet, Green. 12-543 (G2).
ARDEN, FOREST OF, dist., Warwick 2-450b.
ARDENNES, dept., Fr. 2-450d; 10-778 (G2); champagne 28-723c; geology 10-778b; industrial population 10-783c; Walloons 28-286a.
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—, canal, Fr. 10-778 (G2); 10-786b.
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Ardenno, It. 26-242 (H4).
Ardensul, Philip Rovenius van: *see* Rovenius.
Ardent, Raoul 1-505d.
Ardent (in shipbuilding) 24-931a.
Ardentes, Fr. 10-778 (E4).
Ardentinny, Scot. 24-418 (B2).
Ardenza, It. 16-377d.
Ardeonaig, Scot. 24-418 (C2); 26-466c.
Arderin, mt., Ire. 14-744 (D3); 22-731b.
Ardern, James 16-556b.
—, Dr John 12-724c.
Ardes, Fr. 10-778 (F5).
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Ardess, Scot. 24-418 (B2).
Ardettus, hill, Gr. 2-832 (map); 2-831d.
Ardewan, desert, Afg.: *see* Hamdamao.
—, pass, Afg. 13-332a; 13-330c.
Ardez, Switz. 26-242 (I3).
Ardfert, Ire. 14-744 (B4); 27-159a.
Ardfinnan, Ire. 14-744 (D4); castle 4-917d.
Ardfry, penin., Ire. 6-427a.
ARDEGLASS, Ire. 2-451a; 14-744 (F2).
Ardglen, N.S.W. 19-538 (F2).
Ardgour, Scot. 24-412 (C3).
—, dist., Scot. 24-412 (C3).
Ardhamagadhi (language) 22-251c; 14-488d; 13-478d.
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Ardhe, riv., Fr. Cong.: *see* Gribingi.
Ardila, riv., Sp. 25-530 (B3); 12-646b.
Ardingly, Sus. 9-424 (IV. B4); 24-1004a.
Ardisia 5-173c; 17-282c; 15-287d.
Ardistama 13-535d.
Ardistan, Pers. 21-188 (B2); population 21-194b; telegraph 21-195d.
—, dist., Pers. 14-867d.
ARDITI, LUIGI 2-451b.
Ardivachar, pt., Scot. 24-412 (A2).
Ardizio, hill, It. 21-281c.
Ardlamont, bay, Scot. 24-418 (A3).
—, pt., Scot. 24-418 (A3).
Ardle, riv., Scot. 24-412 (E3).
Ardleigh, Ess. 9-424 (IV. D3).
Ardler, Scot. 24-418 (E1).
Ardlui, Scot. 24-418 (B2); geology 8-660c.
Ardlussa, Scot. 24-412 (C3).
Ardeanach, dist., Scot.: *see* Black Isle.
Ardmillan, Ire. 14-744 (F2), 8-453a.
Ardmillan group 20-236b; 5-300b.
Ardminish, Scot. 24-412 (C4).
Ardmore, Ire. 14-744 (D5); 28-369c.
—, Mo. 18-608 (D2).
ARDMORE, Okla. 2-451b; 20-58 (D3).
—, S. Dak. 25-506 (B4).
—, bay, Ire. 14-744 (D5).
—, pt., Ire. 14-744 (F4).
—, pt., Scot. (Islay) 24-412 (C4).
—, pt., Scot. (Skye) 24-412 (B2).
Ardmucknish, bay, Scot.: *see* Nchl, lake.
Ardnacross, bay, Scot. 24-412 (C4).
Ardnadam, Scot. 24-418 (A-B3).
Ardnamurchan, dist., Scot. 24-412 (B-C3); 19-157b; 2-486b; geology 2-487a.
—, pt., Scot. 24-412 (B3); 2-486b.
—, sound, Scot. 25-246d.
Ardo, riv., It. 3-710c.
Ardobrica, Sp. 7-208d.
Ardoch, N. Dak. 19-780 (G1).
—, Scot. 4-584 (B1); 24-418 (D2); Agricola's victory (84)

give the number of the volume containing the main article on *Archimedes*. Turn to the index, under *Archimedes* in heavy type, (do not confuse it with *Archimedes, Screw of*) and notice that the first volume mentioned in the index is the same as the volume found by means of the letters. Under *Archimedes* in the index give the volume, page, column and part of column for mention of his interest in *language*. Give also the two references for his connection with the *Siege of Syracuse*.

The Three Volumes Covering the Decade from 1911-1921 are Indexed Separately

Below is given a specimen entry under *Belgium*, from the index of volume thirty-two. The three new volumes which bring the eleventh edition to 1921 are indexed at the end of volume thirty-two.

Specimen Entry from the Index of Volume 32 of the Encyclopaedia Britannica

BELGIUM 30-429d; African territory 30-68c; agriculture 30-749d; canals 31-373d; 32-491a; cost of living 30-759b; divorce 30-846b; education 30-430d; health 31-697a; International Financial Conference 31-68a; population 30-431b, 31-110a, 233b; shipping 30-547a; strikes and lock-outs 32-593c; unemployment 31-696c.
—: *Army* 30-219d, 432d, 443b; ambulance 32-1060c; Antwerp siege 30-155d; decorations 31-893b; maps 31-842c; rifles 31-279b.
—: *Commerce and Industry* 30-431b, 440b; Brazil 30-492a; coal 30-712c; 31-216a; Egypt 30-941a; finance 30-442b, 982c, 31-255c, 41c; iron and steel 31-594a; post-war 30-444a; wool 32-1066c.
—: *History* 30-432d; 31-31c; Bryce Committee 30-514c; East Africa 30-881b; French war plan 32-972b; German war plan 32-976b; Holland 31-380d; Peace Conference 32-37d; Tanganyika 32-676d; Versailles Treaty 31-32d.
—, Commission for Relief of: see Commission.

In the specimen entry at the left under *Belgium* the references are classified. The first group of topics, which are very general, take about one inch of space and are sub-arranged in alphabetical order. Read the first item, and the last just above *Army*. More specific topics follow, being themselves in alphabetical order, with items under them in sub-alphabetical order. Read the headings following a dash—, beginning with *Army*.

What volume is referred to at the end of the *first* line under *Army*? What is the reference for *wool*, under *Commerce and Industry*?

In this index, and in volume twenty-nine, references under countries are classified.

Places on Maps Indexed

Not only do these indexes refer to all scattered information on any topic, but, in addition, they index all places on each map appearing in the thirty-two volumes, thus constituting an excellent atlas index. Glance at the map of Rhode Island, which follows, and try to realize what a task it has been to write

every place on a separate card and to arrange the cards alphabetically, which is only one of the many tasks preparatory to making an index. Every place on every map in each volume has been indexed.

Find *Waterman* on the map of Rhode Island by looking for it near the point where an imaginary line, drawn from *B* at the top of the map to *B* at the bottom of the map, would intersect an imaginary line drawn from *1* at the right-hand margin to *1* at the left-hand margin. By a similar method, find: *Tiverton, D-2*; *Rumford, C-1*; *School House Pond, B-3*. Turn to the specimen page of the index, find *Arctic* in *very fine type* just below the words *Arc sight* and just above the word *Arctic* (in heavy type), give the reference and find it on the map of Rhode Island. By consulting the index, give the volume, page and map reference for finding each of the following: *Archie, Mo.*; *Archibald, La.*; *Archilion, Ark.*

Specimen Entry of Map from the
Encyclopaedia Britannica



Cross References

Frequently information on a certain subject is scattered under different articles. For example, in the *Encyclopaedia Britannica*, under the article *Book*, mention is made of *publishing*. Part of the information would therefore be found in the volume containing *Book*, and part in the one containing *Publishing*. When it is necessary to call the attention of the reader to the fact that further treatment of a subject can be found by crossing over to other articles, some form of a *cross-reference* is used. Details of methods used will be illustrated later.

In the *Britannica*, at the end of the index a *Classified List of Articles* is given as a guide to related subjects. The *New International Encyclopaedia* gives a guide to *Courses of Reading and Study* in a separate volume.

New International Encyclopaedia

Entries Under Buffalo

Consult the sample page from the *New International Encyclopaedia* which follows, and notice that the word *Buffalo* appears at the top of the first column, and *Buffington* at the top of the second. Any entries which come alphabetically between these words will be found on this page. Guide words in reference books save the necessity of scanning the whole page. Read each heading combined with the word *Buffalo* in bold-faced type. Are the words following Buffalo in sub-alphabetical order? What *cross reference* is given under *Buffalo Moth*? What, under *Buffalo Nut*? What, at the end of the article, under *Buffalo Fish*? Under *Buffalo Bird* two references are given; after number 1, (*Oxpecker*) what abbreviation appears? This abbreviation comes from the Latin words *quod vide*, meaning literally, *which see*, that is, under *Oxpecker*, more information will be found. What fly is referred to by *q. v.* in the third line under *Buffalo Gnat*? What was *Buffalo Bill*'s real name?

The end of the article on *Buffalo City, New York*, comes at the top of the first column. Six lines from the top of this column notice the word *Consult*. The references following this word, give the best books and articles on *Buffalo, N. Y.* Which is the first book mentioned? Give the title and date of publication of the history of Buffalo by Powell. At the end of the article *Buffalo Gnat*, under *Consult*, notice that abbreviations are used. These abbreviations refer to a Bulletin in the Division of Entomology of the United States Department of Agriculture. What is the number of this Bulletin?

The first entry in heavy type of the word *Buffalo* refers to a small town situated in what western state? This town could be located on the map of Wyoming near the intersection of imaginary lines indicated by what letter and number? The volume containing Wyoming would have to be consulted in order to find the place on the map. What was the population of this town in 1910?

The full article on Buffalo, New York, or on any other large city, is separated into sub-topics, such as:

Description	Government
Institutions	History
Commerce and industry	Map of city

in 1882. In 1901 (May 1 to November 1) the Pan-American Exposition was held at Buffalo. At this exhibition occurred the assassination of President McKinley, on Friday, Sept. 6, 1901. See PAN-AMERICAN EXPOSITION.

Consult: Smith, *History of the City of Buffalo and Erie County* (Syracuse, 1884); Ketchum, *An Authentic and Comprehensive History of Buffalo* (Buffalo, 1864-65); Powell, *Historic Towns of the Middle States* (New York, 1899); Severance, *Picture Book of Earlier Buffalo* (Buffalo, 1913).

BUFFALO. A town and the county seat of Johnson Co., Wyo., 32 miles (direct) southeast of Sheridan (Map: Wyoming, E 1). The people are engaged principally in agriculture and stock raising. Buffalo is the seat of a State Soldiers' and Sailors' Home and has a Carnegie library, courthouse, and county high school, and owns its water works and sewer system. Pop., 1890, 1087; 1900, 710; 1910, 1368.

BUFFALO BERRY (*Shepherdia argentea*). While familiar to horticulturists for many years, the buffalo berry has but recently taken rank as a fruit plant. It is a native of the cold, dry northwestern part of North America, where it has achieved its greatest success under cultivation. The buffalo berry is a shrub with small silvery leaves, short thorny spines or branches, upon which the fruits, of about the size of a common currant, are borne. The plant is dioecious, consequently both male and female forms must be planted in order to insure fruit production. The two forms are easily recognized by the form and distribution of the winter buds; the staminate or male plant bears small rounded buds in dense clusters scattered all along the spurs; the pistillate, or female plant, bears fewer and more elongated buds, usually in pairs along the sides of the spurs. The fruits are either red or yellow, are used for jellies, and often serve instead of currants for this purpose. There are no cultivated varieties on the market. The plant is valuable as an ornamental shrub. See ELÆAGNUS.

BUFFALO BILL. See CODY, WILLIAM F.

BUFFALO BIRD. A bird closely associated with wild oxen or buffaloes, picking the parasites from their hides to eat, and warning the animal of possible danger by the expression of its own alarm. 1. An oxpecker (q.v.). 2. A tick bird. See TICK.

BUFFALO FISH. One of several suckers (Catastomidæ) of the Mississippi valley, comprised in the genus *Bubalichthys* or *Ictiobus*, and so called because of the humped outline of the back, the large head, and dark colors. The red-mouthed buffalo fish (*Ictiobus cyprinella*) is brownish olive and reaches a length of nearly 3 feet and a weight of 20 to 30 pounds. The big-mouthed one (*Ictiobus urus*) is also large and very dark, with all the fins black; while the small-mouthed (*Ictiobus bubalus altus*) is paler and more southerly in its habitat. The flesh is poor. For illustration see Plate of SUCKERS. See also FISHERIES.

BUFFALO GNAT. A gnat of the genus *Simulium*, closely related, and similar to the northern black fly (q.v.), which swarms in the valleys of the Mississippi and Missouri rivers. "They rival the mosquito in their bloodthirsty tendencies," says Howard, "and not only do they attack human beings, but poultry and domestic animals are frequently killed by them. . . ." In certain seasons they multiply enormously, alight

on cattle (as formerly they did on the bison), and produce death through their poisonous bites as well as from loss of blood. Unlike mosquitoes, they fly and bite in the daytime and are often seen in large numbers flying in bright sunshine. The larvæ are aquatic, and unlike mosquitoes again, the larvæ of which live in stagnant water, *Simulium* larvæ frequent well-aërated and frequently swiftly running streams. Consult: *Bul.* 5, *Div. Entom., U. S. Dept. Agriculture*; Osborn, "Insects Affecting Domestic Animals," *Dept. Agric.* (Washington, 1896).

BUFFALO GRASS, or BUCHLOË (*Buchloë* or *Bulbilis, dactyloides*). A common grass of the western United States, ranging from Manitoba to Texas, where it is one of the best pasture grasses. It is a low, spreading grass seldom more than 6 inches in height. It spreads rapidly by runners, soon forming a dense sod. The grass is dioecious, the male flowers conspicuous, while the female flowers, which occur on a different plant, are easily overlooked. It is readily propagated by seed or sod and is improved by cultivation. Sod transplanted from the plains to Washington, D. C., quickly covered the ground and is perfectly adapted to its surroundings. It turns brown after frost, but during the summer presents a dense growth of fine herbage. It is apparently very nutritious and is relished by all kinds of stock.

BUFFALO MOTH. See CARPET BEETLE.

BUFFALO NUT. See TRAPA.

BUFFER (OE. *bufe*, slap, blow), **BUFFING APPARATUS.** An arrangement projecting from the frame of a railway car to prevent injury from violent contact or collision, or to deaden the effect of the concussions caused when the velocity of a part of the train is checked or when the engine is starting the train. Buffers are used on passenger cars in America and consist of three parts—the head, the bar, and the stem. The stem passes through the spring and buffer-spring beam; the shoulder formed by the junction of the stem with the bar bears directly, or by means of a plate, against the spring, which is usually of the volute or spiral type. This buffer is placed at the centre of each end of the car. In English railway practice two buffers are used at each end of the car, one at each side of the centre. The general construction is much the same as that described above, except that flat springs, somewhat like a carriage spring, are employed.

BUFFET, bu'fă', LOUIS JOSEPH (1818-98). A French politician. He was born at Mirecourt, Vosges, and in 1848 entered the Chamber of Deputies. Under the presidency of Louis Napoleon he held the portfolio of Commerce and Agriculture. He afterward became leader of a "Tiers Parti," which tried to reconcile liberal reforms with loyalty to the government, and in January, 1870, joined M. Emile Ollivier's cabinet as Finance Minister, but resigned in April. He was elected to the National Assembly (1871), of which he became president in 1872, and formed a cabinet in 1875, taking the portfolio of the Interior. In this latter office, however, he made himself obnoxious to the Republican party, and when, in 1876, he failed to secure a reelection to the Assembly, he resigned. During the same year (1876) the Senate elected him a life member.

BUFFINGTON, ADELBERT RINALDO (1837-). An American soldier. He was born at Wheeling, W. Va., and graduated at West Point in 1861. He was brevetted major in 1865, and was commander successively of the United States

It is advisable to glance over the sub-topics of any long encyclopædic article before beginning to read it, as one can thus often find, very readily, the special information desired.

Pronunciation of Proper Names: Dates

Give the dates of the life of Louis Joseph Buffet. Should the last letter of his name be pronounced?

Where was Adelbert Buffington born? Was he living when this encyclopædia was published?

New International Year-book

The *New International Encyclopaedia* publishes a separate volume for current events each year. The topics are arranged in alphabetical order, and constitute an exceedingly valuable encyclopædia for the events of one year only.

Nelson's Perpetual Loose-leaf Encyclopaedia

A loose-leaf plan for an encyclopædia has been devised by Nelson and Company of New York, and published under the title: *Nelson's Perpetual Loose-leaf Encyclopaedia*. The volumes in this set are not bound in the usual way; the loose leaves are held in place by an adjustable fastening device containing prongs which are run through holes punched in the pages for the purpose. New leaves on current subjects are issued every six months. These leaves are inserted in alphabetical order in the regular set, and out-of-date leaves removed.

The publishers of *Nelson's Loose-leaf Encyclopaedia* have kindly prepared the following composite page showing subdivisions under their article on *Japan*. The full article on Japan in this encyclopædia requires over twenty pages. A few lines only are given under each sub-topic on this composite page, because the object is simply to show the *order* in which sub-topics are entered. Glance over the headings of the topics, in the order given. Encyclopædias sub-divide topics under countries according to some plan, though all encyclopaedias do not use the same one. Usually the sub-topic which treats of the *history* of a country comes at the end, as it does here.

What heading follows *history*? Name a good history of Japan.

The paragraph headed *Flora and Fauna* pertains to the vegetation and the animal life native to Japan. In many encyclopædias *Flora* forms one topic, and *Fauna* a separate topic. What is characteristic of the shrubs of Japan?

Find the sub-topic *Population* and give the census of Japan in 1872.

Under the topic *Religions*, name the religion of the Japanese.

Near the bottom of the second column, find the word *railroads*, in italics, and tell under what subdivision it falls. When was the first railroad built and how long was it?

What word heads the first sub-topic, near the top of column one? Notice that this topic gives the general character of the surface of *Japan*.

After all sub-topics in the general article on Japan are completed, what three full entries are given, which relate to Japan in other matters? Encyclopaedias

Specimen Composite Page Entry taken from Article Japan in Nelson's Perpetual Loose-leaf Encyclopaedia

Japan

Japanese Art

Japan, ja-pan' (called by its inhabitants NIPPON or NIHON—i. e., 'sun origin' or 'eastern land'), an empire in Asia consisting of a long chain of 4,000 islands which extend from 51° to 22° N. lat., and from 119° to 156° E. long., with a total length of about 2,400 miles. Beginning at the north, the empire comprises the volcanic Kuriles, or Chishima which approach close to Kam

Topography.—Japan is a very mountainous country, the only considerable plain being that of Tokyo. Honshu is traversed from end to end by many broken ranges with numerous branches. In the northeast the highest summits are mostly vol

Climate and Soil.—The northern parts of the empire are proportionally much colder than places in the same latitude in Europe and America. In Tokyo, the mean temperature for twenty years ranged

Flora and Fauna.—With its wide range of climate and its lofty mountains, Japan has a great variety of vegetation. Savatier, in his *Enumeratio*, names 2,750 species. The shrubs are mostly evergreen, comprising many with beautiful flowers. There are also numerous evergreen oaks, laurels, and conifers. On the higher grounds are found more deciduous trees, as the elm, beech, walnut, birch, and chestnut. Bamboo clumps, low palms, and cycads in the lower grounds

Forestry.—As the result of its unusually humid climate, Japan possesses a very large area of forest land. The types of forest growth correspond to those found in the Atlantic States, including sixty species of conifers and pines, and oak, beech, maple, birch, and other deciduous trees; toward the south, especially in Formosa, are camphor, bamboo, and cinnamon trees. The long-continued use of wood as fuel for the manufacture of ceramics, and the wholesale destruction of wooden houses by fire, however,

Fisheries.—The fishing industry stands high in importance, based upon natural advantages equalled only on the Atlantic seaboard of the United States. The Japanese, as an island people, early adopted a seafaring life; and at least 500 years ago fishing settlements were made on the island of Yesso, attracted by the cod, herring, sar

Mining.—Japan is only moderately rich in mineral wealth. Great progress has been made during the last thirty years in mining, foreign methods and machinery having been freely introduced and foreign engineers employed. The mines,

Agriculture.—Sixty per cent. of the people are agriculturists. As shown in accompanying table,

	Acreage.	Production
Rice.....	7,507,705	\$10,045,426
Barley.....	1,495,253	1,958,141
Rye.....	1,700,148	1,580,022
Wheat.....	1,240,830	1,035,900
Soy bean.....	1,223,390	738,638
Sweet potatoes	734,698	*8,318,820,506
Potatoes.....	172,300	*1,510,596,902
Sugar cane....	53,143	*1,895,313,903
Tobacco leaf ..	69,393	*74,073,464
Tea.....	74,843	*72,594,606
Hemp.....	29,213	*21,106,347
Leaf indigo...	12,655	*20,391,025

* Pounds

Manufactures in Japan are sharply divided into the old historic industries and those introduced since the revolution of 1868. The former industries, originating in China, were improved by the Japanese through long and

Commerce.—The situation of Japan is most favorable to foreign commerce, its island character, limited area of tillable land, and proximity to countries rich in natural resources suggesting a comparison with Great Britain.

The growth of Japan's commerce, owing to her pec

Shipping.—From the closing of the ports to foreign commerce in 1638 until their reopening in 1869, Japanese shipping was at a low ebb, and the size of vessels was limited by law. As late as 1892, 77 per cent. of the ships visiting Japanese ports were foreign, but since that time shipping has developed greatly. In 1913 Japan owned 2,072 registered steamers, with a gross tonnage of 1,513,941, and 7,343 sailing vessels, with a gross tonnage of 487,347. This result has been accomplished largely by the granting of subsidies to steam

Transportation and Communication.—The large number of ports in Japan, the rough configuration of the country, and the short distances from inland to sea coast districts have encouraged water transportation. Ordinary roads, though greatly improved, and now for the most part macadamized, still leave much to be desired.

Railroads.—The first railway in Japan was between Tokyo and Yokohama, 18 miles in length, and was opened in 1872. In 1906 the government acquired most of the railways of the count

Population.—The first reliable census of Japan, taken in 1872, showed a population of 33,110,825; the census of 1898 returned a total of 43,763,153 inhabitants; that of 1908, 49,588,804 inhabitants in Japan Proper, and 65,682,247 in the Empire. The population of Japan Proper was then divided as follows: royal family, 67; nobles, 5,642; knights, 2,218,623; common people, 47,382,262. In 1914 the pop-

Religions.—*Shinto*, the indigenous religion of Japan, is in the main a nature worship. The gods are innumerable, the chief among them being the sun goddess, from whom the Mikados are supposed to be de

Army and Navy. In 1884 the Army was organized on the best European models; and its present high efficiency was demonstrated in the wars with China (1894-95) and with Russia (1904-05). All able-bodied males between the ages of 17 and 40, with the exception of students in foreign countries, elementary school teachers,

Government.—After the revolution of 1868 (see *History*), in which the Shogunate was abolished and the actual sovereignty returned to the Emperor, many reforms were effected, the general result of which was to substitute a constitutional monarchy for the former autocracy.

Finance.—The budget estimates for the year ending March 31, 1914, placed the total ordinary revenue at \$264,878,000, and the extraordinary revenue at \$28,526,000; the ordinary expenditures at \$211,009,000, and the extraordinary expenditures at \$82,395,000. The

History.—EARLY PERIOD.—Modern Japanese historians begin with the Mikado Jimmu, who is stated to have ascended the throne in 660 B.C. But the more trustworthy contemporary records of China and Korea show that for more than a thousand years after the supposed date of Jimmu's reign, nothing existed in Japan which deserves the name of history. About the date of the Christian epoch, Chinese travelers found a monarch established in Yamato, who ruled over a large part of the present Japan. For

Bibliography.—GENERAL HISTORY.—The history by Dr. Murray in the 'Story of the Nations Series' is the best; but it is uncritical, especially in the earlier part. A *History of the Empire of Japan* was compiled by various Japanese authors for the Chicago Exhibition. Griffis' *The Mikado's*

Japan—Archaeology. The archaeological remains of the Japanese race date from a few centuries before the Christian epoch. The most remarkable are the

Japan—Language and Literature. The Japanese language belongs structurally, like Korean and Manchurian, to the Altaic family, and like other Altaic languages delights

Japanese Art. In the *Mechanical Arts* the Japanese have attained to great excellence, especially in the branch of metallurgy, and in the manufacture of porcelain, lacquer ware, and silk fabrics; indeed so exquisite in design and execution

often give articles which relate to a country after the treatment of the country as a whole, has been completed. One should train one's self to think of how such entries may be made, for often the alphabetical order must be considered.

Fictitious Characters and Titles of Standard Works of Literature

The *New International Encyclopaedia* enters important fictitious characters, and titles of standard works of literature in alphabetical order. (So also does the *Encyclopaedia Americana*.)

The *Encyclopaedia Britannica* does not enter characters in fiction; titles of standard works of literature can often be traced through the index. •

The *Nelson Loose-leaf Encyclopaedia* does not enter characters in fiction; it does enter titles to a few standard works of literature.

The Century Cyclopaedia of Proper Names, which is one volume of the Century dictionary, is most excellent for any really important proper name.

Though some encyclopædias exclude characters in fiction, most encyclopædias include characters in mythology and legend.

Encyclopaedias do not usually include either foreign or common phrases; these should be looked for in dictionaries. Most encyclopaedias list common abbreviations under the word *Abbreviations*.

Encyclopaedic Information in Modern Dictionaries

Recent editions of the Standard, Webster, and Century dictionaries give so much information of an encyclopædic nature, and in such an exceedingly condensed form, that they constitute what might be called the most valuable brief encyclopædias published. Information of this character is given in dictionaries after the last numbered definition of the word. These dictionaries are also most excellent for fictitious characters. Very few *titles* of standard works of literature are given in the Standard and Webster dictionaries.

Important Subjects have Special Encyclopaedias and Dictionaries

The arrangement of reference material in encyclopædic form has developed marvelously during recent years. One general encyclopædia is no longer sufficient, even for a small library, but it is practically necessary for a library to have special encyclopædias or dictionaries on important subjects. The range of such reference books is almost limitless; one's acquaintance with them will depend largely upon individual needs. Such subjects as the following have important encyclopædias: Chemistry; Agriculture; Law; History; Biography; Music; Mathematics; Horticulture; Political Economy; Engineering, other subjects.

Though it is a mistake to confine one's reference work mainly to books of an encyclopaedic nature, it is also a mistake to slight books of this character.

A Few Important Special Cyclopaedias and Dictionaries

Read the following list of books. They are only suggestive, but the thought that many subjects have special encyclopaedias is important in connection with the study of encyclopædias.

1. Bliss, William D. P. New Encyclopædia of Social Reform. 1 vol.
2. Grove. Dictionary of Music and Musicians. 5 vols.
3. Hart, A. B., and others. Encyclopædia of American Government. 3 vols.
4. Hastings, Rev. James. Bible Dictionary. 1 vol.
(Many dictionaries and cyclopaedias on Biblical subjects are published.)
5. Larned. History for Ready Reference. 7 vols. (Recently enlarged.)
6. Jewish Encyclopædia. 12 vols.
7. Lippincott. New Gazetteer of the World. 1 vol.
8. Lippincott. Pronouncing Dictionary of Biography and Mythology. 1 vol.
9. Monroe, Paul. Cyclopedia of Education. 5 vols.
10. Peck, H. T. Harper's Dictionary of Classical Literature. 1 vol.
11. Catholic Encyclopaedia. 16 vols.

Important Authors have Special Reference Books

Prominent authors have special reference books devoted to characters, plots, quotations, and other details connected with their works. A few important books of this nature are mentioned below.

Author Dictionaries and Synopses

A synopsis of a work gives a general outline of it.

Browning.	Cyclopedia.	Berdoe.
Dickens.	Dickens Dictionary. Dickens Synopses.	Philip. McSpadden.
Eliot, George.	Dictionary.	Mudge and Sears.
Kipling.	Dictionary.	Young.
Scott.	Waverly Dictionary. Waverly Synopses.	Rogers. McSpadden.
Shakespeare.	Shakespeare Synopses.	McSpadden.
Thackeray.	Thackeray Dictionary.	Mudge.

Warner: Library of the World's Best Literature. (30 volumes, or more, according to edition). Directly preceding the general index, in the last volume, synopses of many works of literature are given; the index to the works outlined is under title, and precedes the synopses. These outlines of over 400 of the best novels are now published separately, by the Macmillan Company. They are known as *Reader's Digest of Books*, by H. R. Keller.

Book Reviews: Some book reviews are practically synopses.

The Reader's Handbook, by Brewer, has been a serviceable book for many years. It gives synopses of a few of the older *standard* works of literature.

Encyclopaedias in Foreign Languages

Nearly every country publishes its own reference books. Standard modern encyclopaedias are written in the following languages:

Chinese; French; German; Hungarian; Italian; Norwegian; Russian; Spanish; Swedish.

Development of the Encyclopaedic Plan

The need of having knowledge arranged in a systematic way for its preservation and for reference purposes was recognized centuries ago. If the details of the growth of such reference books are desired they can be found under the article *Encyclopaedia* in any good modern encyclopaedia.

The name *Chambers*, in connection with encyclopaedias, is one which has been honored for about two hundred years. In 1728, Ephriam Chambers issued an encyclopaedia in two volumes. The alphabetical arrangement of information was unusual at that time, and the plan had a wide spread influence in other countries. This encyclopaedia has been revised and enlarged many times; the date of the last revision is 1923.

A very important encyclopaedia was published in France just before the French Revolution. The scholars who prepared this encyclopaedia are known in literature as *The Encyclopaedists*.

An Encyclopaedia for Young Readers

Articles in the large standard encyclopaedias are usually written for adults, and are often difficult for young students. The need of a reliable reference work suited to students of the upper grammar and high school grades has long been felt. A number of reference books have been published for this purpose. A most satisfactory one is:

The World Book; 10 volumes, published by W. E. Quarrie & Co., Chicago.

The articles are written in simple language.

A complete index is given in Volume 10.

A list of related topics is given at the end of all general articles.

Many articles are signed.

Important subjects are outlined; frequently questions draw out the main points.

The set is well illustrated.

Beginning with the year 1921, this encyclopaedia added a most valuable feature by publishing a brief year-book, in paper binding, which is so inexpensive that any school could have copies. The plan is to give the events of a single year in a style corresponding to that of the encyclopaedia. The articles are in alphabetical order, are not too detailed, and are confined to world interests for one year.

An encyclopaedia has been prepared for pupils in grades as low as the third or fourth. It is entitled:

Pictured Encyclopaedia; 8 volumes, published by Compton & Co., Chicago.

The title of the encyclopaedia mentioned above indicates that subjects are presented as largely as possible through pictures.

Either of these encyclopaedias for young readers may be serviceable for adults when dates and main points only are needed.

Questions for Encyclopaedias

NOTE: Numbers in margin at right of questions below, give values on scale of 100%

- 1—a. How many volumes constitute the eleventh edition of the Encyclopædia Britannica?
- b. How many volumes have been added to make the twelfth edition?
- c. What decade does the recent volumes cover?
- d. Are the editions indexed together or separately?.....4 each =16
- 2—What does the abbreviation *q. v.* mean?..... 5
- 3—a. Which encyclopædia is issued in loose-leaf binding?
- b. How frequently are separate leaves, containing current information, issued for the Loose-leaf encyclopædia?.....5 each =10
- 4—Articles under countries in encyclopædias are usually quite extensively sub-arranged. What do the following subdivisions mean?
- | | | |
|-------|-------|-----------------------------|
| Fauna | Flora | Bibliography.....4 each =12 |
|-------|-------|-----------------------------|
- 5—Under any country or city, in an encyclopædia, is the history usually given among the first or among the last subdivisions of the article?.....5
- 6—Under the word “Plato,” in the index of the Encyclopædia Britannica, the following reference appears: 12-513c.
Name the volume, page, column, and part of column to which reference is made.....5
- 7—Which of the encyclopædias for adults issues a year-book?.....5
- 8—a. Name a good encyclopædia written especially for young people.
- b. Name an encyclopædia for children.....5 each =10
- 9—Name an encyclopædia which enters important fictitious characters.....5
- 10—Should titles of prominent works of literature be looked for in the Britannica through the index, or in alphabetical order in the body of the work?.....5
- 11—Name three modern dictionaries which give characters in fiction.....2 each =6
- 12—Which dictionary enters proper names in a separate volume?.....2
- 13—In what part of an article on Lowell in a good encyclopædia should one look for the best books about him?.....5
- 14—What does *synopsis* mean?.....4
- 15—Name five countries which have standard encyclopaedias.....1 each =5

Plan for Checking Work
When Training in the use of Reference Material
is organized as a
Required Feature of the Regular English Course

Schools which use these pamphlets as a required feature of their English courses will find it convenient to have a plan for marking the lesson. For this purpose a number appears after each question to indicate its value on the scale of 100%. Because this work requires but a few days each term, students are in danger of considering it unimportant unless it is carefully guarded. A reference question in examinations emphasizes the work. If a certificate for passing in an English course is not granted unless the work in the library pamphlet for that course has been completed, the fact will be established in the student's mind that the school considers training in the use of reference books to be as necessary as is training in other educational lines.

Reference Guides That Should be Known and How to Use Them

By
Florence M. Hopkins
Librarian
Central High School, Detroit, Michigan



*This Pamphlet Pertains to
Library Classification and Card Catalogue*

THIRD EDITION

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FLORENCE M. HOPKINS

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The pamphlet on *Webster's New International Dictionary* may be purchased at the rate of 10 cents per copy; in lots of fifty, for 8 cents each plus carriage, from the Publishers of the Dictionary.

G. & C. MERRIAM COMPANY,
SPRINGFIELD, MASS.

Other pamphlets, as listed in the *Foreword*, on the opposite page, may be purchased at the rate of 25 cents per copy; in lots of fifty, for 17½ cents each plus carriage, from

THE WILLARD COMPANY,
601 West Fort Street,
DETROIT, MICH.

NOTE: Arrangements have been made between The G. & C. Merriam Co. and the Willard Co. by means of which the lesson on Webster's New International dictionary can be sold much more cheaply than can the lessons on miscellaneous reference books. It is hoped that this plan will make it possible for schools to adopt at once the dictionary pamphlet, as a required text book for the first term of high school English work, and the other pamphlets later.

Foreword

This pamphlet is one of a series on the use of reference books. The complete series constitutes a third edition of *Reference Guides That Should be Known and How to Use Them*, which appeared first in 1916 in bound form as a text book for high and normal schools.

The third edition has revised and condensed the eleven pamphlets of the second edition into eight pamphlets, one for each of the eight high school courses in English, as listed below. The revised text can also be adapted to meet the needs of college freshmen who have had no special training in the use of reference tools. No important change has been made in the subject matter. Each pamphlet contains sixteen pages; even though the subject may be new, it should be mastered in a little more than an hour's time.

List of Pamphlets in the Series

Graded to correspond with High School English Courses

English 1—Webster's New International Dictionary.

English 2—Parts of a book: Concordances.

English 3—Encyclopaedias.

English 4—Library classification and card catalogue.

English 5—Year-books.

English 6—Indexes to periodical literature.

English 7—Commercial guides.

English 8—Government publications: city, state, and federal.

It might be well to give the entire series to high school seniors, if the work has not been organized grade by grade. College freshmen could do the work independently; so also could anyone needing reference tools, club workers, for example. A survey was recently made by the faculty of one of our state universities, concerning causes of failure in the freshman college year: four statements were formulated, one of which reads as follows: "Students should be trained to use ordinary means of securing information, such as: *the table of contents, the index, the dictionary, the encyclopaedia, the card catalog, the Readers' Guide to Periodical Literature, the newspaper, the informational magazine.*" It is therefore evident that a need exists for some plan of teaching the use of reference material which can be fitted into the crowded high school and college courses without undue intrusion or expense.

These simple lessons have been prepared in the hope that they will aid students to become familiar with standard reference material. The inclusion of specimen pages from the reference books studied makes it possible for each student to follow all illustrative examples without making a trip to a library and waiting to have access to the complete reference work. No library will furnish a sufficient number of copies of expensive reference books for this purpose; neither can a library afford to have pages in expensive reference books as badly worn and marked as this work would cause them to become.

Much dependence is placed upon the co-operation of the English departments when the work is given in high schools, each teacher of English being expected to devote about three recitation periods to the pamphlets which are graded to correspond with the respective English courses taught. In college, it would seem to be a very simple matter for the rhetoric department to plan to have their freshmen read these pamphlets early in the term, either as assigned class work, or independently, time being allowed, so that the work could be done without overpressure. Satisfactory results might be assured if students understood that at the first rhetoric examination a few leading questions selected from those on the inside of the back covers of the pamphlets would be asked.

According to the library code for capitalization all words in a title begin with a lower case letter instead of with a capital, except the first word, proper nouns, and adjectives derived from proper nouns. Certain specimen pages will show that some publishers follow this code.

*The following paragraphs are taken from the
Foreword of the First Edition*

Possibly the best way of presenting the points which it is hoped this series of lessons may emphasize is to quote directly from the preface of a Bulletin on "Library instruction in universities, colleges and normal schools," from the United States Bureau of Education, 1914—No. 34.

Many educators of note, as well as college and university librarians, have emphasized the urgent necessity of instruction and training in "book-using skill." . . .

The place of the library in the work of all departments is one of increasing importance. The library is a resource or reservoir from which the student should draw constantly for information and inspiration. . . . Every month of delay in instructing him in the meaning and use of the library lessens the efficiency of his course.

. . . . Every new student should be required to take some course in which is given definite practical instruction in the handling of library tools. . . . Such a course, moreover, should not only be required, but it should constitute a definite part of the work required for a degree.

Library Classification and Card Catalogue

If the hundreds of thousands of volumes in large libraries are to be made available, some carefully planned system for the arrangement of books on the shelves is necessary. Many experiments have been made with different plans, but the one which meets with the greatest favor at the present time is a "Decimal system" devised by Melvil Dewey. The Library of Congress has its special system, which is used by a few other libraries.

Dewey or Decimal System of Library Classification

Under the Dewey or Decimal system of library classification all books on the same subject are arranged by means of numbers. Ten large subjects, each of which is assigned to a hundred division, form the basis of the system. For example, science is represented by 500; literature, by 800; fine arts, by 700. The hundreds are next subdivided into tens, each ten representing some division of the main subject, as: 810, American literature, 820 English literature; physics is represented by 530, a particular science under 500; music is represented by 780, a particular division of fine arts. Each of the tens is next divided into units: as 811, American poetry, a division of American literature; 537, electricity, a division of physics; 784, vocal music, a division of music.

When possible, certain numbers stand for certain subjects: for example, a "0" always represents something general, whether it occupies the units, tens, or hundreds position. If a book is about England, a "2" will appear somewhere in the book-number; the reverse, however, is not the case; that is, if a "2" appears in a book-number, the book is not necessarily about England. This will be illustrated more fully on the following page. A careful study of the significance of each number is too detailed for a brief lesson.

When accurate work is done for a library, it is necessary to have access to the full classification, with its index. These tables serve for general outlines only.

Questions Drawing Out the Arrangement of Table 1, Which Follows

Consult Table 1, on page 4, and read carefully and thoughtfully all of the numbers, and the subjects which they represent, from 000 through 900, including also the divisions for biography and fiction, below 900.

Table 1

Illustrating the Dewey or Decimal System of Library Classification Under Hundreds

000—General works; such as encyclopædias, magazines, newspapers.

100—Philosophy; such as psychology, ethics, philosophy.

200—Religion; such as mythology; any book on any religion.

300—Sociology; such as government, education.

400—Philology (language); such as grammars, history of language.

500—Science; such as physics, chemistry, biology, mathematics.

600—Useful arts; such as engineering, medicine, manufactures.

700—Fine arts; such as painting, music, sculpture, architecture.

800—Literature; such as poetry, dramas, essays of any country.

900—History; such as travel, description, history.

B—Biography being a very large subject, is classified in some libraries by itself, under “B.” Other libraries, however, use a division under history, 920, for biography, as the life of a person is simply the history of an individual, instead of the history of a country. Under 920, the life of an artist would be numbered 927; 7 is used because 700 represents fine arts. What line of work would be represented by biographies numbered as follows: 922; 925; 928; 921; 924; 929?

Fiction—Most libraries do not classify fiction under a number. Books of fiction are usually placed on the shelves in alphabetical order under the first letter of the author’s surname, with titles arranged in sub-alphabetical order. Some libraries, however, classify fiction under a division of literature, 800.

How many zeros appear in the first division? As there are only nine divisions from 100 through 900, and as the system requires ten divisions to carry out the decimal plan, the division of 000 is improvised to meet this need. It is, in all respects, treated as the other divisions.

Classify books on the following subjects.

Chemistry.

History of England.

Study of music.

Encyclopædias.

David Copperfield; story by Dickens.

English grammar.

Questions Drawing Out the Arrangement of Table 2, Which Follows

Table 2, on page 5, repeats the main divisions under Table 1, but shows how each subject is separated into ten subdivisions. Consult the table under 800, and give the numbers for: French literature, Italian literature, Greek literature. Under 400, give the numbers for: French language, Italian language, Greek language. Notice that the numbers in the tens position correspond. When a book is about France, “4” will appear *somewhere* in the number; though of course not necessarily in the tens position; if the book is about Italy, “5” will appear; if it is about Greece, “8” will appear.

Table 2

Illustrating the Dewey or Decimal System of Library Classification Under Divisions by Tens

000 GENERAL WORKS.	500 NATURAL SCIENCE.
010 Bibliography.	510 Mathematics.
020 Library Economy.	520 Astronomy.
030 General Cyclopedias.	530 Physics.
040 General Collections.	540 Chemistry.
050 General Periodicals.	550 Geology.
060 General Societies.	560 Paleontology.
070 Newspapers.	570 Biology.
080 Special Libraries.	580 Botany.
090 Book Rarities.	590 Zoology.
100 PHILOSOPHY.	600 USEFUL ARTS.
110 Metaphysics.	610 Medicine.
120 Special Metaphysical Topics.	620 Engineering.
130 Mind and Body.	630 Agriculture.
140 Philosophical Systems.	640 Domestic Economy.
150 Mental Faculties. Psychology.	650 Communication and Commerce.
160 Logic.	660 Chemical Technology.
170 Ethics.	670 Manufactures.
180 Ancient Philosophers.	680 Mechanic Trades.
190 Modern Philosophers.	690 Building.
200 RELIGION.	700 FINE ARTS.
210 Natural Theology.	710 Landscape Gardening.
220 Bible.	720 Architecture.
230 Doctrinal.	730 Sculpture.
240 Devotional and Practical.	740 Drawing. Design.
250 Homiletic, Pastoral.	750 Painting.
260 Church. Institutions.	760 Engraving.
270 Religious History.	770 Photography.
280 Christian Churches and Sects.	780 Music.
290 Non-Christian Religions.	790 Amusements.
300 SOCIOLOGY.	800 LITERATURE.
310 Statistics.	810 American.
320 Political Science.	820 English.
330 Political Economy.	830 German.
340 Law.	840 French.
350 Administration.	850 Italian.
360 Associations and Institutions.	860 Spanish.
370 Education.	870 Latin.
380 Commerce and Communication.	880 Greek.
390 Customs. Costumes. Folklore.	890 Minor Languages.
400 LANGUAGE (Philology).	900 HISTORY.
410 Comparative.	910 Geography and Description.
420 English.	*920 Biography.
430 German.	930 Ancient History.
440 French.	940 Europe.
450 Italian.	950 Asia.
460 Spanish.	960 Africa.
470 Latin.	970 North America.
480 Greek.	980 South America.
490 Minor Languages.	990 Oceanica and Polar Regions.

*Biography is often classified by a "B" instead of by a number. Fiction is usually classified alphabetically by the author's surname, and therefore has no number.

Explanation of Cutter Table of Author-marks

What number, in Table 2, represents American literature under 800? The number for American poetry, a division of American literature, not shown in the table, is 811. It is evident, therefore, that the poems of Longfellow, Whittier, Bryant, Lowell, and all other American poets will have the same number, that of 811, unless some provision is made to distinguish them. It is as impossible for two books in a library to have exactly the same number, as it would be for two pages in a book to be numbered alike. Libraries avoid such difficulties by following the Dewey number with the first letter in the author's surname. For Bryant's poems a "B" would follow 811; for Holmes' poems an "H" would follow 811. This would be a very simple solution if there were not several authors whose surnames begin with the same letter. Longfellow and Lowell and Lanier would each be 811L under this plan, unless a further division were used. Of course, Longfellow might be, "811 Lon," and Lowell, "811 Low," and Lanier, "811 Lan," but this would be confusing. Therefore a key, showing the relation of the alphabet to numbers, has been carefully worked out by C. A. Cutter. These numbers range between 10 and 100 to correspond with the alphabetical position of the second and third letters of the author's surname; if the fourth letter is designated, three numbers appear on the scale of 10 to 1000. The scale gradually changes from low numbers, which represent letters in the first part of the alphabet, to high numbers, which represent letters in the latter part of the alphabet. Experience has proved that it is easier to handle books and cards if arranged by numbers than if arranged by letters.

Consult the following specimen entry of the "Cutter Table of Author-marks" for "B," find "Bry," and give the number in connection with it. The Cutter number for Bryant is B84, because "ry," the second and third letters in Bryant, are near the end of the alphabet, and "84" is a relative distance from 10 to 100. By placing this Cutter number, "B84," after the Dewey number, "811," the complete classification for Bryant's poems becomes 811-B84. This number is used by the majority of libraries of America for Bryant's poems.

The Dewey and the Cutter numbers for the poems of John Burroughs, an American poet, are 811-B94. Give the Cutter number only for: Botsford; Browning; Burns. When the number for a name cannot be exact, as Bartlett, for example, use the number directly preceding. Give the number for Bamford. Tell, without consulting the table, whether the number following B, in the name Bacon, would be a high or a low number. Which would be the higher number, the one for Bedford, or the one for Bennett?

The complete table contains a key for each letter in the alphabet, corresponding with the specimen entry for B. This key is used by almost all libraries. Many libraries do not place any Dewey number before the Cutter number for fiction. The number for a story by Barrie, entitled "Sentimental Tommy" is B27S. "B27" is the Cutter number for Barrie; "S" represents the first letter of the title. Give the number for a story by Blackmore entitled "Lorna Doone." Some libraries do not even give a Cutter number for fiction, but put authors alphabetically on the shelf without such close classifying.

As we have seen, many libraries use a “B” instead of a Dewey number for biography. The “B” is placed first, then the initial letter of the surname of the one written about, with its Cutter number. The Cutter number is then followed by the initial of the author’s surname. Under this plan, the book-number for a biography of Daniel Boone, by Abbott, would be B-B64-A. The first “B” classifies the book under biography. “B64” is the Cutter number for Boone (the one written about). “A” indicates that the author’s name begins with “A.”

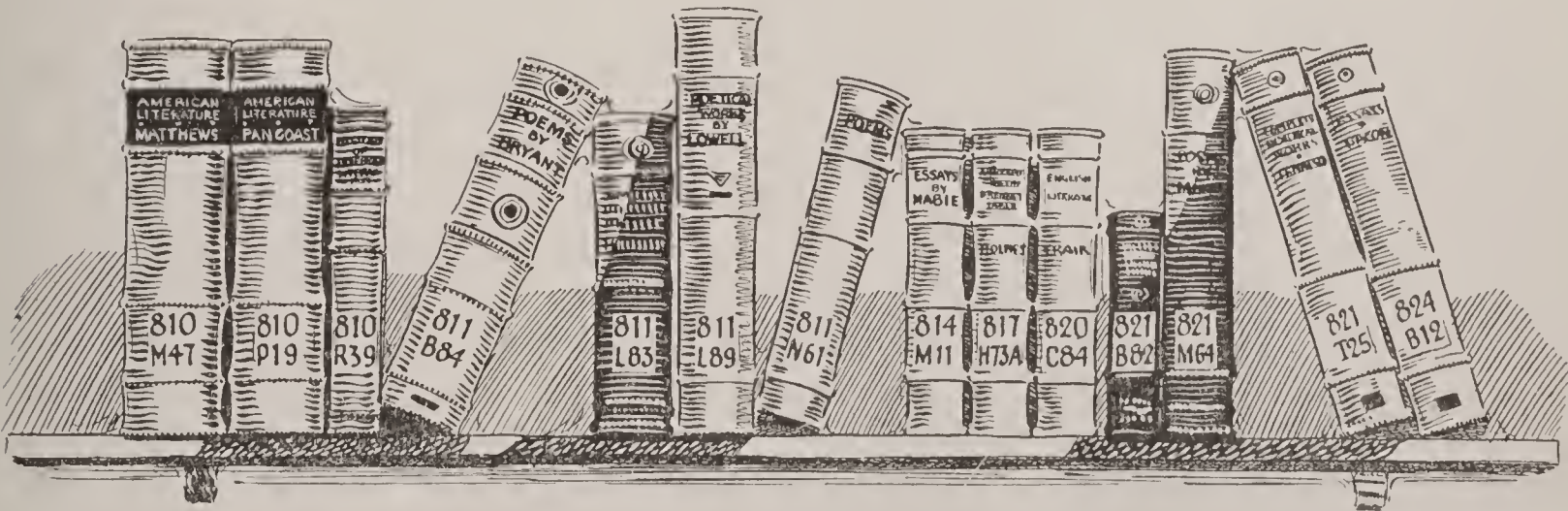
Specimen entry for “B” from Cutter Table of Author Marks

Ba 11	Bax 33	Bix 55	Brim 77
Bac 12	Bay 34	Bl 56	Bro 78
Baco 13	Be 35	Blaf 57	Broo 79
Bad 14	Beal 36	Blak 58	Brow 81
Bail 15	Beam 37	Blan 59	Browni 82
Bain 16	Bear 38	Bland 61	Bru 83
Bak 17	Bed 39	Blo 62	Bry 84
Bal 18	Bel 41	Bo 63	Bua 85
Bald 19	Bem 42	Bon 64	Bue 86
Ball 21	Ben 43	Bot 65	Bul 87
Ban 22	Beno 44	Bou 66	Bum 88
Bar 23	Beo 45	Bow 67	Bura 89
Bark 24	Bers 46	Bowl 68	Burg 91
Barm 25	Bi 47	Box 69	Burl 92
Barne 26	Big 48	Boin 71	Burn 93
Barr 27	Bil 49	Bra 72	Burr 94
Bars 28	Bim 51	Brae 73	Burt 95
Bas 29	Bio 52	Bre 74	Bus 96
Bat 31	Bir 53	Brem 75	But 97
Batf 32	Bis 54	Bri 76	Butp 98

Arrangement of Books on Shelves

The number by which a book is classified is known as a “call number” because the book is called for by that number. This “call number” is written or stamped on the back of the book so that one can readily find its place on the shelf. All books of the same class are together, sub-arranged first by numbers, and then by the letters of the author’s name.

Consider the illustration below as a shelf of books classified under literature. Do not attempt to read the titles, but by referring to the numbers near the bottom of the books tell between what numbers American Literature by New-



comer, 810-N43, would be placed? Are Holmes’ Poems, 811-H73, in? Are Lowell’s Poems, 811-L89, in? Are Longfellow’s Poems, 811-L83, in? Are Tennyson’s Poems, 821-T25, in? Are Bacon’s essays, 824-B12 in?

Shelf Lists

It is necessary for libraries to have a file of cards arranged in the order in which books are placed on the shelves, to make it possible to determine what books have been assigned to certain numbers, or what books may be missing from any section. This file of cards, called a "shelf-list," is not ordinarily needed by the users of the library.

Before taking up the next subject, it would be well to memorize the ten main divisions of the Dewey or Decimal classification as given on page 4, Table 1.

Card Catalogue

A card catalogue of a library consists of cards, uniform in size, for all books in the library. These cards are written, or typewritten, or printed. Each card represents either:

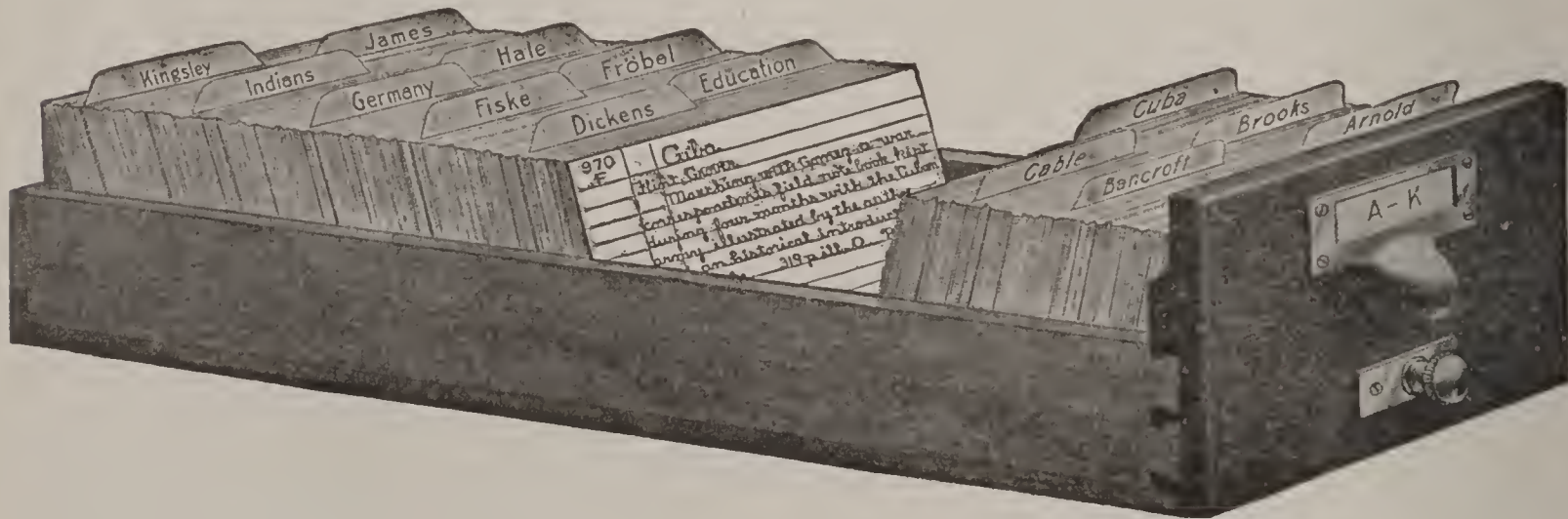
An author;

A title;

A subject; or

A special chapter or phase of some one book.

The complete catalogue gives full information on such points for every book in the library. The cards are usually filed in one alphabetical order, in cabinets made for the purpose; and, to prevent misplacement, are fastened by a rod run through a hole in the bottom of each card.



The above cut represents a drawer of such a cabinet as it would appear if it were removed. Notice that the front of this drawer indicates that it contains cards in alphabetical order from A to K. If the book which is represented by the card in full view just below the word Cuba were to be called for, the number in the upper left-hand corner of the card, 970-F, would be copied by the one desiring the book and handed to some one in charge of the library. This number shows where the book is located on the shelves; the "9" indicates that it is in the section of history; the "7," that it is among the books on American history, and the "0," that it treats of some general phase of American history; the "F," represents the initial of the author's surname: in this fine print no Cutter number is given. *The "call number" is always entered in the upper left-hand corner of the card.*

Guide Cards

Notice that after Cuba, a card headed "Dickens" extends above the other cards. What word, beginning with "E," extends above the line immediately following Dickens? These cards are called "guide cards," because they guide one to the location of certain letters in the catalogue. If a card for a book on *Fish* is in the drawer, it would appear between what guide cards?

Library of Congress Printed Cards

If a catalogue is to give a complete record of the authors, the titles, and the subjects of all of the books in a library, several cards must be made for each book. This, of course, means much careful work, which should be done only by those who have been trained in the details of cataloguing methods. As cards for the same book are nearly the same in all libraries, it is obvious that there is much wasted energy in writing these cards separately for each library. A central bureau has therefore been established by the Library of Congress for

Parkman, Francis, 1823-1893.

The California and Oregon trail; being sketches of prairie and Rocky Mountain life, by Francis Parkman, jr., with an introduction by Edward G. Bourne, PH. D. New York, T. Y. Crowell & co. [1901]

1 p. l., xix, 416 p. front. (port.) 19^{cm}.

Added t.-p.: The Oregon trail.

1. The West—Descr. & trav. 2. Indians of North America—The West.
3. Frontier life—The West.

Library of Congress
© 1901 A 12474



F592.P256

1-16630

the purpose of supplying other libraries with printed cards, similar to the illustration above. As the Library of Congress receives two free copies of every book which is copyrighted in the United States, its card catalogue has a printed card for all such books. Cards are also printed for all other books in the Congressional Library. These cards can be purchased by any library, public or private, for a trifle more than blank cards. It is therefore possible for a small library to be catalogued as carefully as a large one is. For details, address: Printed Card Catalogue Division, Library of Congress, Washington, D. C.

A Library of Congress card for "California and Oregon Trail" by Francis Parkman is reproduced in exact size, on page 9. All entries are made by using this form, which is the only one printed.

To make an "author card" from this printed form, all that is necessary is to enter the "call number," 917.P256, in the upper left-hand corner. The card would be filed in the catalogue in alphabetical order under Parkman, Francis.

A title card, made from this form, would have the title, "California and Oregon trail" written above Parkman, and the call number entered in its proper place. The card would be filed in the catalogue in alphabetical order under California. See **reduced** cut below.

917
P256

California and Oregon trail.
Parkman, Francis, 1823-1893.
The California and Oregon trail; being sketches of prairie and Rocky Mountain life, by Francis Parkman, jr., with an introduction by Edward G. Bourne, PH. D. New York, T. Y. Crowell & co. [1901]
1 p. l., xix, 416 p. front. (port.) 19^{cm}
Added t.-p.: The Oregon trail.

1. The West—Descr. & trav. 2. Indians of North America—The West.
3. Frontier life—The West.

Library of Congress
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F592.P256

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Under the library code of capitalization, ordinary words in a title begin with a lower case letter instead of with a capital. Notice that trail on the card begins with a lower case letter.

As the book is about Oregon as much as it is about California, a third card would be made by writing "Oregon trail" above the word Parkman, entering the call number, and filing the card under Oregon.

Other entries are needed for this book, beside those for author and title. Three suggested subjects are numbered and abbreviated a little below the middle of the card. Glance at the card above and tell what is suggested for number 2? If a card were made for this subject, the words "Indians of North America—the West" would be written on the printed form above the word Parkman, the call number entered, and the card filed in alphabetical order under Indians. The numbers at the lower left are the copyright numbers of the card itself. The number at the right of the indicated hole is the Library of Congress classification number, only the second part of which, P256, will be familiar. The last number on the card is the one by which it is filed in the Library of Congress.

The sample card which follows shows how carefully every important essay in Lowell's "My Study Windows" should be catalogued. As the essays do not all relate to the same subject, and as the subjects cannot be surmised from the title, each essay is listed after the word *Contents*. Give the title of the first essay, and also of the second. In the paragraph below "Contents," the important subjects treated in the essays are numbered, indicating that a card

should be made for each one. What are the first and second subjects suggested? What is the eleventh subject? After the last subject, the word *Title* indicates that a title card should be made. To make this title card, what words should be written above Lowell? Dates are given after the name of each person for whom a subject card is to be made. After number 4, find when Carlyle lived; after number 10, when Emerson lived. Give the dates for Lowell, which are at the top of the card. Where would the call number, which is 814.L95, be entered on each card made?

Lowell, James Russell, 1819-1891.

My study windows. By James Russell Lowell .. Boston, New York, Houghton, Mifflin and company [c1899]

4 p. l, 433 p 20^{cm}

"Forty third impression"

CONTENTS —My garden acquaintance —A good word for winter —On a certain condescension in foreigners —A great public character —Carlyle.— Abraham Lincoln —The life and letters of James Gates Percival —Thoreau —Swinburne's tragedies —Chaucer —Library of old authors —Emerson, the lecturer —Pope

1 Birds 2 Winter 3 Quincy, Josiah, 1772-1864 4 Carlyle, Thomas, 1795-1881 5 Lincoln, Abraham, pres U S, 1809-1865. 6. Percival, James Gates, 1795-1856 7 Thoreau, Henry David, 1817-1862 8. Swinburne, Algernon Charles, 1837-1909 9 Chaucer, Geoffrey, d. 1400 10. Emerson, Ralph Waldo 1803-1882 11 Pope, Alexander, 1688-1744 1 Title



17-16121

Library of Congress

PS2320 A1 1899 a

Practical Suggestions for Using a Card Catalogue

Though users of a card catalogue do not need to be troubled with the details of cataloguing, which belong to a special feature of library economy, they should thoroughly realize the value of a card catalogue, and be perfectly familiar with the plan upon which it is arranged; otherwise they cannot be independent, or feel at home, in finding material in large libraries.

Dates; Editions; Publishers

The habit of noticing the dates and publishers of books should be cultivated. The date is often immaterial, but sometimes it is very important. A book on submarine boats printed in 1910 would be practically useless. It is also advisable to notice whether or not the catalogue contains cards for different editions of a work. Important books usually pass through many editions. Bartlett's "Familiar Quotations," for example, has passed through ten editions; the last one, of course, is more complete and better arranged than any preceding edition. The works of Milton, Shakespeare, Dickens, Scott, and of many other authors, have passed through numbers of editions. Early editions of the works of a prominent author are valuable.

The publisher of a book is often a recommendation of it. Good publishers are anxious to have a reputation for giving satisfactory service, as are all other

responsible business houses. A good publisher's name, therefore, means that honest work is guaranteed, and that the subject matter of the book has been approved by a responsible firm.

Call Number Easily Found Under Entry with Fewest Cards

Before consulting the card catalogue for the call number of a desired book, if the author, subject and title of the book are all known, try to think under which entry the fewest number of cards would have to be handled. For example, should one wish to draw from a large library a copy of the collection of English essays written by John Brown, entitled "Spare Hours," the call number for the book would have to be found in the card catalogue under either author, title or subject. Under the author, Brown, John, as many cards would be found as there were books in the library either by or about a man so named. To find the John Brown desired would necessitate the handling of many cards. A still larger number of cards would be found under the subject, "Essays—English." Under the title, "Spare Hours," there would be very little probability of finding any other cards with exactly the same heading.

When a catalogue contains many cards on a subject, find the first card headed with the word desired, then the last one, and glance over the guide cards which may come between them. If this plan is followed, a reference can often be readily located, which otherwise might require the handling of so many cards that one would become discouraged.

Sub-arranging Entries Under a Letter or a Subject

Unless one is alert to the fact that a plan must be adopted for sub-arranging long lists under a main word, or a subject, or a letter, an important reference may be lost. Though standard rules for filing are gradually being adopted, they are not as yet uniform in libraries, publishing houses, and business firms.

It requires careful training and study to arrange long lists of references in accord with the best approved methods, and *filing* should be done only by those trained for the work. However, any one who frequently consults files for information needs to know some of the general principles applied. One cannot use even a large telephone directory, or a city directory, without knowing the plan followed by the local publisher.

Different Plans of Alphabetizing Outlined

Persons; places; titles, beginning with the same word: If one should look in a card catalogue, or in an encyclopaedia, under the word *Lincoln* many entries beginning with the word *Lincoln* would be found. Usually *persons* are listed first, followed by a sub-alphabetical arrangement according to given names, as in a telephone directory. *Places* are usually entered next; those in the United States being sub-arranged alphabetically by the state in which the place is located. *Odd entries* are usually listed third, such as; *Lincoln college; Lincoln-Douglass debates; Lincoln Green; Lincoln highway; Lincoln monument.*

Proper names differently spelled: Remember that proper names may be spelled differently, *Eliot* or *Elliot* or *Elliott*; *Grey* or *Gray*; *Osborn* or *Osbourn*. Each spelling is entered in its own alphabetical order, with all its sub-entries under it. A cross reference from one spelling to another usually appears.

Titles beginning with numbers: Titles beginning with numbers are filed as they would be if the numbers were written out. *20th Century Outlook* would come under *Twentieth Century Outlook*.

Word by word arrangement: When many entries begin with the same word, all entries beginning with that word are usually completed before a different word is introduced, even if a strict alphabetical order of letter by letter is thus interrupted. If many titles begin with the word *My*, all second words following *My* will probably appear in alphabetical order before any title beginning with a word other than *My*. Under this arrangement, a book entitled *My Year's Experience* would be listed before one entitled *Mystery Tales*, even though *y*, the third letter in the first title (for *Year's*) comes after *s*, the third letter in the second entry, *Mystery*. Under a similar ruling, *Out With the Birds* would appear before *Outside the Walls*, if many entries under *Out* were given. In recent publications, this rule applies to combinations of words. For example, all titles beginning with *Finger* would appear before one beginning with *Fingerposts*, because *posts* is joined with *finger* to make another word. A book entitled *Fingerposts to Children's Reading* might therefore be listed after one entitled *Finger Technic*. Under the same ruling, *Art Museum* would appear before *Artcraft*; *New Hampshire*, before *Newcomb*; *New Zealand* before *Newport*. Many times, however, the word by word arrangement is displaced by a *strict* letter by letter arrangement.

Initials following surnames: Surnames, when followed by *initials* instead of by full given names, are often placed before those followed by the full name. Under this plan, Miller, W. I., might appear before Miller, Albert; or it might be found under Miller, preceding the *full* given names beginning with W., or, possibly, following such names.

Initials in titles: When an entry begins with *initials*, not *abbreviations*, it is usually placed at the beginning of all other entries for that letter. *H. H.*, a pen name for *Helen Hunt*, would probably appear at the very beginning of the alphabet for *H*. A book entitled *O K Guide*, might be found at the beginning of the list under *O*, taking precedence of one entitled *Oak Farm*.

Abbreviations spelled in full: When a title begins with an abbreviation, it is often placed in the alphabetical order which it would have if the abbreviation were spelled in full. For example, under *M*, the novel entitled *Mr. Britling Sees It Through*, might be found under *i* as the second letter (for *Mister*), not *r* for *Mr.*, though it would be printed *Mr.* Similarly, words beginning with *St.* or with *Dr.* usually appear as they would if the words were spelled in full.

Occasionally, names beginning with *Mc.*, followed by those beginning with *Mac.*, appear before all other entries under *M*; however, usage differs greatly. Generally names beginning with either *Mc.* or *Mac.* are in strict alphabetical order under *Mac*. The surnames *McAdam* and *Macadam* are usually treated as though spelled alike, and appear in the order of any other word beginning with *maca*. After the given names, titles or subjects appear in alphabetical order, as *Macadam Rock*, *Macadamized Road*.

Titled individuals under Christian names: If a given name, as *John*, applies to many titled individuals, the order of the entries is usually as follows: saints; popes; emperors; kings; noblemen, followed by lesser titles. Under popes, the second arrangement is by number; under kings, the second arrangement is alphabetically by country, and the third by number under country. *Charles II of England* would therefore appear before *Charles I of France*, because *England* precedes *France* in alphabetical order. Which would come first, *Charles IV of Spain* or *Charles I of Sweden*?

History in chronological order: Under the history of a country, the references are frequently sub-arranged by dates. Under *American history* the first books listed may refer to the period of discovery; the next division to books on the colonial period; the third to those on the Revolution, etc. Plans differ.

Entries under an author's name: When many entries are made under an author's name, those appearing first are usually his complete works; those appearing last, books about him. Individual works, if bound separately, are usually listed after the complete works, and are sub-arranged by the title of the work. Under Shakespeare, the first group of entries would probably refer to complete editions of his plays; the second group would list plays in alphabetical order by title, if bound separately; these would be followed by biographies and essays about Shakespeare.

Special Indexes

As we have seen, a card catalogue indexes all books which a library contains under as many different headings as are necessary. A card catalogue, however, is necessarily limited in its scope, and cannot index every reference in the library. Magazine articles, for example, are exceedingly valuable for reference work, but, if a card catalogue should attempt to include an index of them, it would become so cumbersome that it would be more annoying than helpful. Excellent indexes are prepared separately for magazines, and are issued in printed form. As magazine indexes are explained in another place, no details are given here. The fact that special indexes are prepared for widely different needs should be kept in mind when in search for reference material. Telephone directories, and city directories, for example, are special indexes. An English dictionary, is simply an exhaustive index to the words in the English language; indeed, the dictionary was one of the first indexes made; a biographical dictionary is practically an index which lists prominent persons of the world, giving a brief sketch of each; a chemical dictionary lists and explains chemical terms; a dictionary of dates arranges historical events in chronological order; a concordance indexes *words* used by an author.

A few important special indexes are mentioned below. Read the description of each book, and try to realize why it was prepared.

A. L. A. Portrait Index. (American Library Association.)

An index of portraits contained in over 6,000 volumes of books and periodicals published *prior to 1905* listing about 120,000 portraits.

Readers' Guide to Periodical Literature.

Indexes articles and portraits in many current magazines.

**Baker, Ernest A. Guide to Historical Fiction.
Guide to Best Fiction.**

These two large volumes list fiction only. The first one classifies historical novels under periods of history; the second classifies standard novels as literature of the different nations. Each volume has an excellent index of authors, titles, subjects; frequently very prominent fictitious characters are entered in the index.

Through the index to *Best Fiction*, one can occasionally trace novels relating to some central interest, such as: music, slum life, blindness, etc.

Granger, Edith. Index to Poetry and Recitations.

The Granger Index enables one to find familiar selections which are scattered in out-of-the-way books. By means of it, one can find such favorites as: the "*Old Oaken Bucket*;" "*'Twas the Night before Christmas*;" "*Elegy Written in a Country Churchyard*."

It indexes about 400 volumes of miscellaneous collections of poems, recitations and readings. Each selection is indexed three times:

1: The index for the titles of the selections requires about the first third of the book. All references to books containing selections are made under the title index only.

2: The index for the authors requires the second third.

3: The index for the first lines requires the last third.

If only the first line of the poem or recitation is remembered, look for it in the "First Line Index," and reference will be made to the title; if only the author is known, look in the "Author Index," and a similar reference will be found. If all three are known, look first in the "Title Index." Collections are referred to under initials which stand for the words of the titles of the collections, as: *BNL* refers to a collection of poems entitled *Bryant's New Library of Poetry and Song*; *BLP* refers to *Beacon Lights of Patriotism*. The key to these abbreviations appears at the front of the Granger Index. Most libraries have copies of many of the collections of poems and recitations indexed.

Book Selection: Bibliography

An important phase of education is that of training one's self to know where to find lists of the best books on desired subjects. Our need for selection ranges from the best books for children to the best books for young people and adults in the line of stories, travel, history, science, or other interests. One needs to be guarded against the danger of being absorbed by the mediocre. If we wish to grow, and to cultivate a taste for the best literature, we must do some reading above our level.

The American Library Association

One of the most valuable educational influences of recent years is the American Library Association. Few people, other than those connected with libraries, realize the full extent of its work. This association has been a large factor in establishing the exceptional service which we have through the public library system in this country. It publishes most carefully prepared lists of selected books; and, to an unusual extent, lives up to its motto, "Best reading, for the greatest number, at the least cost." The following publications of this Association are excellent for book selection: 78 E. Washington Street, Chicago.

8000 Titles for a Popular Library (1904). (Now sold by Superintendent of Documents, Washington, D. C.)

3000 Titles for a Popular Library (1905-1911, supplement).

4000 Titles for a Popular Library (1912-1921, supplement).

Booklist, issued monthly, keeping the above up to date.

Mudge—New Guide to Reference Books.

The H. W. Wilson Company
958-972 University Avenue, New York.

This firm publishes more bibliography than any other firm in the world.

Their publications which refer to book selection are:

Book Review Digest: monthly; reviews current books.

Standard Catalogue: bimonthly; reviews current books for small libraries.

State Library Commissions: Other Educational Bodies

Library commissions, located at state capitals, frequently publish valuable lists, usually free to schools of the state and sold very reasonably outside of the state.

Much excellent work is done by many state library commissions in the way of sending boxes of books, known as traveling libraries, to small towns and rural districts. Some states maintain an automobile traveling library which carries books at frequent regular intervals to isolated places.

Many local Libraries, Boards of Education, Normal Schools, Publishers, etc. issue lists of books for various needs.

The United States Bureau of Education has issued a list of books for a high school library; bulletin 41, 1917, prepared by *Martha Wilson*, which can be purchased through the Superintendent of Documents, Washington, D. C. This list, abridged and revised, without annotations, has been issued by Hunting Co., Springfield, Mass.

References in Scattered Books

In addition to the above lists the student should bear in mind that guides to good books, frequently headed "Bibliography," can be found:

- a. At the end of articles in good general encyclopædias, and in encyclopædias and dictionaries of special subjects.
- b. In many good text-books on the subject desired.
- c. In many good special works on the subject desired.

Questions for Library Classification and Card Catalogue

NOTE: Numbers in margin at right of questions below, give values on scale of 100%.

- 1—Name any five of the main subjects in the Dewey or Decimal system of library classification, giving the correct hundred number for each.....4 each=20
- 2—Fiction, if numbered at all, is usually classified alphabetically under the initial of the author's surname, followed by the Cutter number, and then by the initial of the title. "D55" stands for Dickens; "D55L" stands for Little Dorrit. Give the number for Dickens: Martin Chuzzlewit.....6
- 3—Most libraries use "B" for Biography instead of a number, following the "B" by the initial letter of the surname of the one written about; this, in turn, is followed by the initial of the surname of the one who wrote the biography. Indicate, under a, b, c, d, below what the following signify for a book numbered B-L63-N:
- The "B" stands for what?
 - The biography is about a man whose name begins with what letter?
 - Are the second letters of his name near the beginning of the alphabet, e. g., Lake; or near the end, e. g., Lyons; or about the middle, e. g., Lincoln?
 - The book is written by a man whose name begins with what letter?....3 each=12
- 4—Under the library code of capitalization do ordinary words in titles begin with a capital letter or with a lower case letter?.....=6
- 5—The following represents a Library of Congress printed card, reduced. To make a title card out of the form, what should be written above *Goodnow*?.....=6

Goodnow, Frank Johnson, 1859—		
... City government in the United States, by Frank J.		
Goodnow .. New York, The Century co., 1906,		
x. 315 p. 20 ^{cm} (The American state series)		
First pub. in 1904.		
1. Municipal government—U. S.	i. Title.	
		8—8344
Library of Congress		JS331.G72

- 6—What should be written above Goodnow to make this a subject card?.....=5
- 7—Under which words should cards be filed for?
- a: author; b: title; c: subject;.....3 each=9
- 8—Who has compiled two large indexes to serve as guides to the best fiction?.....=6
- 9—Who has compiled an index which guides to recitations and poems in scattered books?=6
- 10—Is a word by word or a letter by letter alphabetical plan followed if *New Mexico* appears before *Newberry*?.....=3
- 11—A title beginning with *Mr.* is usually found under what spelling?.....=3
- 12—Can one find the call number for *Tarbell's Life of Lincoln* more readily under *Lincoln* or under *Tarbell*? Why?.....=6
- 13—What Association publishes a *Booklist*, giving a list of the best recent books?.....=6
- 14—In which part of an encyclopaedic article is a list of good books on a subject usually given?.....=6

**Plan for Checking Work
When Training in the use of Reference Material
is organized as a
Required Feature of the Regular English Course**

Schools which use these pamphlets as a required feature of their English courses will find it convenient to have a plan for marking the lesson. For this purpose a number appears after each question to indicate its value on the scale of 100%. Because this work requires but a few days each term, students are in danger of considering it unimportant unless it is carefully guarded. A reference question in examinations emphasizes the work. If a certificate for passing in an English course is not granted unless the work in the library pamphlet for that course has been completed, the fact will be established in the student's mind that the school considers training in the use of reference books to be as necessary as is training in other educational lines.

Reference Guides

That Should be Known and How to Use Them

By
Florence M. Hopkins
Librarian
Central High School, Detroit, Michigan



*This Pamphlet Pertains to
Year-books*

THIRD EDITION

PUBLISHERS *and* PRICES
ARE GIVEN ON THE
REVERSE SIDE OF THIS COVER

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by
FLORENCE M. HOPKINS

25711
11/22/23
R723
COPY 2
R723

The pamphlet on *Webster's New International Dictionary* may be purchased at the rate of 10 cents per copy; in lots of fifty, for 8 cents each plus carriage, from the Publishers of the Dictionary.

G. & C. MERRIAM COMPANY,
SPRINGFIELD, MASS.

Other pamphlets, as listed in the *Foreword*, on the opposite page, may be purchased at the rate of 25 cents per copy; in lots of fifty, for 17½ cents each plus carriage, from

THE WILLARD COMPANY,
601 West Fort Street,
DETROIT, MICH.

NOTE: Arrangements have been made between The G. & C. Merriam Co. and the Willard Co. by means of which the lesson on Webster's New International dictionary can be sold much more cheaply than can the lessons on miscellaneous reference books. It is hoped that this plan will make it possible for schools to adopt at once the dictionary pamphlet, as a required text book for the first term of high school English work, and the other pamphlets later.

Foreword

This pamphlet is one of a series on the use of reference books. The complete series constitutes a third edition of *Reference Guides That Should be Known and How to Use Them*, which appeared first in 1916 in bound form as a text book for high and normal schools.

The third edition has revised and condensed the eleven pamphlets of the second edition into eight pamphlets, one for each of the eight high school courses in English, as listed below. The revised text can also be adapted to meet the needs of college freshmen who have had no special training in the use of reference tools. No important change has been made in the subject matter. Each pamphlet contains sixteen pages; even though the subject may be new, it should be mastered in a little more than an hour's time.

List of Pamphlets in the Series

Graded to correspond with High School English Courses

English 1—Webster's New International Dictionary.

English 2—Parts of a book: Concordances.

English 3—Encyclopaedias.

English 4—Library classification and card catalogue.

English 5—Year-books.

English 6—Indexes to periodical literature.

English 7—Commercial guides.

English 8—Government publications: city, state, and federal.

It might be well to give the entire series to high school seniors, if the work has not been organized grade by grade. College freshmen could do the work independently; so also could anyone needing reference tools, club workers, for example. A survey was recently made by the faculty of one of our state universities, concerning causes of failure in the freshman college year: four statements were formulated, one of which reads as follows: "Students should be trained to use ordinary means of securing information, such as: *the table of contents, the index, the dictionary, the encyclopaedia, the card catalog, the Readers' Guide to Periodical Literature, the newspaper, the informational magazine.*" It is therefore evident that a need exists for some plan of teaching the use of reference material which can be fitted into the crowded high school and college courses without undue intrusion or expense.

These simple lessons have been prepared in the hope that they will aid students to become familiar with standard reference material. The inclusion of specimen pages from the reference books studied makes it possible for each student to follow all illustrative examples without making a trip to a library and waiting to have access to the complete reference work. No library will furnish a sufficient number of copies of expensive reference books for this purpose; neither can a library afford to have pages in expensive reference books as badly worn and marked as this work would cause them to become.

Much dependence is placed upon the co-operation of the English departments when the work is given in high schools, each teacher of English being expected to devote about three recitation periods to the pamphlets which are graded to correspond with the respective English courses taught. In college, it would seem to be a very simple matter for the rhetoric department to plan to have their freshmen read these pamphlets early in the term, either as assigned class work, or independently, time being allowed, so that the work could be done without overpressure. Satisfactory results might be assured if students understood that at the first rhetoric examination a few leading questions selected from those on the inside of the back covers of the pamphlets would be asked.

According to the library code for capitalization all words in a title begin with a lower case letter instead of with a capital, except the first word, proper nouns, and adjectives derived from proper nouns. Certain specimen pages will show that some publishers follow this code.

*The following paragraphs are taken from the
Foreword of the First Edition*

Possibly the best way of presenting the points which it is hoped this series of lessons may emphasize is to quote directly from the preface of a Bulletin on "Library instruction in universities, colleges and normal schools," from the United States Bureau of Education, 1914—No. 34.

Many educators of note, as well as college and university librarians, have emphasized the urgent necessity of instruction and training in "book-using skill." . . .

The place of the library in the work of all departments is one of increasing importance. The library is a resource or reservoir from which the student should draw constantly for information and inspiration.

. . . Every month of delay in instructing him in the meaning and use of the library lessens the efficiency of his course.

. . . Every new student should be required to take some course in which is given definite practical instruction in the handling of library tools. . . . Such a course, moreover, should not only be required, but it should constitute a definite part of the work required for a degree.

Year-books

It is always more difficult to find information on recent events than it is to find it for years past. Newspaper articles are unsatisfactory, scattered, and not well adapted for permanent reference work. The best provision made for information on recent topics comes in the form of year-books and magazines. The wide range of subjects included in year-books is seldom fully realized.

Read the list below to gain an enlarged thought of the extent of the publication of year-books. A detailed study of certain ones will be given on the following pages.

Encyclopaedic year-books: keeping encyclopaedias up to date:

New International Year-Book.

The World Book: This encyclopaedia for young people publishes an inexpensive paper bound brief annual.

The *Britannica* has recently issued 3-volumes, covering the important decade—1911-1921. The *Nelson* Loose Leaf Encyclopaedia issues loose leaves every six months, punched so that they can be bound in the regular volumes.

Year-books for miscellaneous information and statistics:

World Almanac.

Hazell's Annual.

Statesman's Year-book.

Annual Register.

Whitaker's Almanac.

Statistical Abstract; others.

Year-books regarding individual countries; written in English:

China; Japan; Mexico; others.

Year-books for religious denominations:

Catholic; Jewish; Lutheran; Methodist; Unitarian; others.

Commercial and professional year-books:

Most industries and professions have year-books pertaining to their special needs.

Biographical year-books, giving brief sketches of prominent living persons:

Who's Who: Persons prominent anywhere in the world.

Who's Who in America.

Special: Certain fields of work have their special *Who's Who*, as *Who's Who in Finance*, or in *Science*, or in *Music*, or on the *Stage*.

Cities, states, clubs and other organizations often issue lists of persons prominent in their localities.

Corresponding publications are issued by some foreign nations.

A Study of Who's Who in America

The sketch of a person's life in any of the "Who's Who" books is short, and is greatly condensed by using many abbreviations, such as: "b" for "born;" "m" for "married;" "ed" for "educated;" "s" for "son;" "d" for "daughter;" "e.d." for "eldest daughter." Whenever a book uses special abbreviations, an alphabetical list of them, followed by their meanings, appears in the front of the book.

The specimen entries on the opposite page, will serve as an illustration of the plan upon which most of the "Who's Who" books are arranged. The entries are taken from *Who's Who in America*. This book includes, as nearly as possible, sketches of all **living** Americans whose position, activities or achievements make them of general interest. Here can be found sketches of living:

1. Members of Congress; heads of federal departments.
2. Leading lawyers, physicians, architects.
3. Governors of states and island possessions.
4. Heads of large universities.
5. Authors, musicians.
6. People active in many other lines of work.

Consult the specimen page and read the sketch of the life of William Warner Bishop, interpreting as many of the abbreviations as possible. In which profession has he become prominent? What is his address, given at the end of the article? An important feature of all "Who's Who" books is to give the person's address as the last item under a sketch.

"Who's Who" books include only living people. If a person whose name is in one of these books dies, the next issue of the work usually gives the date of his death, and refers to the last volume containing a sketch of his life. For an example, see Samuel Henry Bishop.

When there is nothing new to be added to the sketch of a living person, reference is often made to a volume of earlier date. See Roswell P. Bishop.

"Who's Who in America," also gives, at the *front*, a "Geographical Division" which classifies all names in the book under state and city. This enables one to find who are especially prominent in certain localities. Prior to 1922-3, this section appeared at the back of the volume.

Consult the specimen page, second column, under Michigan, and tell in what lines of work the following persons in Ann Arbor have become prominent:

Samuel Beakes;	W. A. Dewey;
Junius Beal;	Nelville S. Hoff;
John Effinger;	Albert Lockwood.

Does the name of William W. Bishop appear in the Geographical section?

Re-read the last section on page 3, under *Biographical year-books*.

A Speciman Entry from Biographical Section of Who's Who in America

BISHOP, Roswell P., ex-congressman; see Vol. VIII (1914-15).

BISHOP, Samuel Henry, clergyman; May 1, 1864-May 27, 1914; see Vol. VIII (1914-15).

BISHOP, Seth Scott, surgeon; b. Fond du Lac, Wis., Feb. 7, 1852; s. Lyman and Maria (Probart) B.; grad. Pooler Inst., Fond du Lac, Wis.; studied at Beloit (Wis.) Coll.; New York Univ.; M.D., Northwestern Univ., 1876 (D.C.L., LL.D.); learned printers' trade; m. Jessie A. Button, of Chicago, Mar. 23, 1885. Formerly prof. diseases of the nose, throat and ear, Loyola U. Med. Sch.; surgeon to Jefferson Park Hosp.; formerly surgeon to Ill. Charitable Eye and Ear Infirmary, etc.; consulting surgeon to Mary Thompson Hosp., Ill. Masonic Orphans' Home (LaGrange, Ill.) and Silver Cross Hosp. (Joliet, Ill.). Mem. Internat. Med. Congress, Pan-Am. Med. Congress, A.M.A., Ill., Wis. and Minn. State med. socs. Mason, Odd Fellow. Mem. Beta Theta Pi. *Author*: Diseases of the Nose, Throat and Ear; The Ear and Its Diseases; also numerous monographs, etc. Contbg. editor, New York Med. Times. *Home*: 1726 Ridge Av., Evanston, Ill.

BISHOP, William Henry, author; b. Hartford, Conn., Jan. 7, 1847; s. Elias and Catherine (Kelly) B.; A.B., Yale, 1867; studied architecture; m. Mary Dearborn Jackson, of New York, July 28, 1886. Editor and propr. Milwaukee Commercial Times till 1877; instr. modern languages, Yale, 1893-1902; United States consul at Genoa, Italy, 1903-4, at Palermo, Italy, January 1, 1905-July 1, 1910, resigned. Republican. Agnostic. Mem. Soc. Colonial Wars. *Author*: Detmold, 1879; The House of a Merchant Prince, 1882; Choy Susan and Other Stories, 1884; Old Mexico and Her Lost Provinces, 1884; Fish and Men in the Maine Islands, 1885; The Golden Justice, 1887; A House Hunter in Europe, 1893; The Brown Stone Boy and Other Queer People (re-issued as Queer People), 1902; Sergeant Von (anonymously), 1889; The Yellow Snake (re-issued as Tons of Treasure), 1902; A Pound of Cure, 1894; Writing to Rosina, 1894; The Faience Violin (transl. from French of Champfleury), 1893; Anti-Babel, 1919. *Clubs*: Authors, Ends of the Earth (New York); Graduates (New Haven). Mem. Nat. Inst. Arts and Letters. *Home*: Brooklyn, Conn.

BISHOP, William Samuel, theologian; see Vol. VII (1912-13).

BISHOP, William Warner, librarian; b. at Hannibal, Mo., July 20, 1871; s. William Melancthon and Harriette Anna (Warner) B.; A.B., U. of Mich., 1892 (Phi Beta Kappa), A.M., 1893; fellow Am. Sch. Classical Studies in Rome, 1898-9; m. Finie Murfree Burton, of Louisville, Ky., June 28, 1905. Prof. Greek, Mo. Wesleyan Coll., Cameron, Mo., 1893-4; instr. in N.T. and asst. librarian, Garrett Bibl. Inst., Evanston, Ill., 1895-8; librarian and instr. in Latin, Poly. Inst. of Brooklyn, N.Y., 1899-02; head cataloguer, Princeton U. Library, 1902-4; reference librarian, same, 1904-7; supt. Reading Room, Library of Congress, Washington, D.C., 1907-15; librarian, U. of Mich., since 1915. Mem. A.L.A. (pres. 1918-19), Am. Hist. Assn., Bibliog. Soc. America, etc. Conglist. *Club*: Cosmos (Washington, D.C.). *Author*: Practical Handbook of Modern Library Cataloguing, 1914. Contbr. numerous articles to library publs. *Home*: 715 Church St., Ann Arbor, Mich.

BISLAND, Elizabeth, author, see Wetmore, Elizabeth Bisland.

BISPHAM, David Scull, opera singer; Jan. 5, 1857-Oct. 2, 1921; see Vol. XI (1920-21).

A Speciman Entry from Geographical Section of Who's Who in America

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Boak, Arthur E. R., historian, 418
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Cross, Arthur L., univ. prof., 821
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Friday, David, economist, 1180
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Holbrook, Evans, prof. law, 1540
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Hussey, William J., astronomer, 1632
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Levi, Moritz, univ. prof., 1899
Lloyd, Alfred H., univ. prof., 1934
Lockwood, Albert, pianist, 1939
Lombard, Warren P., coll. prof., 1945
Lorch, Emil, prof. architecture, 1952
Lyons, C. J., prof. surgery, 1982
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A Study of the Statesman's Year-book

When consulting a year-book, the date on the title page, which is also on the back of the book, should always be carefully considered. Year-books are usually issued in January, and often bear in the title the year of *issue* rather than that of the preceding year,—the one for which the events are recorded. As custom differs with publishers, one should notice which plan is followed when using a year-book.

On the opposite page is an index taken from a *Statesman's Year-book*. It is inserted to illustrate the character of information given in this work.

In the first column find the new Republic of Georgia, created since the war, and read each topic listed under it.

Notice that the topics are in alphabetical order. Corresponding information for every country in the world is revised yearly for the current issue of the *Statesman's Year-book*.

In the second column find Georgia, U. S. A. Read each topic under it also. Every state in the United States is treated in a similar way.

Name the pages on which information for the following topics may be found for the Republic of Georgia:

Education;	Railways;
Books of reference;	Constitution;
Wheat;	Area and population.

Are the corresponding topics given for the state of Georgia?

Find under which *Georgia* the following topics are mentioned, and try to realize why some of the topics are common to both.

Indians;	Defence;
President;	Religion;
Rice;	Imports and exports.

To which page should one turn for *Geneva, N. Y.*?

To which pages should one turn for *Geneva, Switzerland*?

To which page should one turn for the university of Georgetown, U. S. A.?

Information in the *Statesman's Year-book* is arranged mainly in topics for reading, not in tabular form. That the *World Almanac* generally arranges its material in tables, will be shown later by specimen pages.

A Specimen Entry from an Index to a Statesman's Year-book

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A Study of the World Almanac

The specimen pages which follow are taken from a *World Almanac*. This almanac is a year-book so practical for ready reference and so reasonable in price that it should be in homes as well as in libraries. For this reason more attention is given to it here than to any other one year book. It is printed on cheap paper, in exceedingly fine type, and contains many advertisements, which account for its low price. There are very few books of any kind which have as large a sale as does the *World Almanac*.

The index to the *World Almanac* appears immediately after the colored advertising pages at the front of the book. The index to a business book is usually at the front, that of other books at the back.

On the opposite page a specimen entry from an index to a *World Almanac* is given. To gain an idea of the range of subjects treated, consult it under the following entries, giving the page referred to for each.

1. Soldiers' homes.
2. List of Speakers of House of Representatives.
3. Sporting events.
4. Officers of; Sons of American Revolution. National Society of;
Social Hygiene Association.
Silk Association of America.
5. Weather signals.
6. Read all entries under *Spain*. Corresponding information is given for every country in the world. Compare entries under *Soudan* and *South Africa*.
7. Read all entries under the word *State*. (singular)
8. Read all entries under the word *States*. (plural)
9. Give page for each of the following:
 - a: State capitals.
 - b: Mottoes of states.
 - c: Population by states.
 - d: Governors of states.
 - e: Origin of names of states,
 - f: State flowers.
10. Name the page which gives the distance and light of stars.
11. Read all entries under steamship. (singular)
12. Read all entries under *South Carolina* and also under *South Dakota*. Corresponding information is given for each state.
13. Name the page which gives the world's steel production.
14. Name the page which gives the submarine cables of the world.

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A Study of the World Almanac: Continued

Read the general headings and also the heading of each column of the specimen entry from a *World Almanac*, on the opposite page.

Notice that every country in the world is listed on one page in alphabetical order. This is a good illustration of how much information the *World Almanac* gives in a very small space, by condensing it, tabulating it, and printing it in very fine print.

Notice the heading *Birth Stones*, at the bottom of the page, which is given here, because a little space could be utilized for a very brief entry. Under Birth Stones in the index, a reference would be made to this page.

Answer the following questions:

- 1. What is the birth stone for July?
- 2. Who was president of *China* when this page was printed; when was he born, and when did he become president?
- 3. Who was king of *Greece*?
- 4. What are the titles of the rulers of the countries given below?
 - a. *Persia*;
 - b. *Palestine*;
 - c. *Abyssinia*;
 - d. *Luxemburg*;
 - e. *Australia*.
 - f. *Mexico*.
- 5. How frequently does Switzerland choose a president?

Glance down the page, at the titles of the rulers, and tell which one seems most common.

Below is given a table of the Mohammedan population of the world. Glance at the end of the table, and give the approximate total. What country has the largest number of Mohammedans? This table is indexed under both the word *Population* and *Mohammedan*.

MOHAMMEDAN POPULATION BY COUNTRIES.			
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Asiatic Turkey (before the war).....	15,000,000	Tunis.....	2,000,000
Asiatic Russia (before the war).....	14,000,000	Algeria.....	5,000,000
Persia.....	9,000,000	Morocco.....	5,000,000
Afghanistan.....	5,000,000	Liberia.....	1,000,000
India.....	70,000,000	British, French, Belgian, Italian and	
China.....	12,000,000	former German colonies in West, East	
Indo-China and Siam.....	2,000,000	and Central Africa.....	25,000,000
Malay Archipelago and Pacific Islands...	35,000,000		
Egypt.....	12,000,000	Approximate total Mohammedan pop-	
Soudan.....	4,000,000	ulation of the world.....	227,000,000
Abyssinia.....	5,000,000		

A Specimen Entry
from a
World Almanac

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Rulers of the World.

RULERS OF THE WORLD.		
The date of birth, when known, is in parentheses.		
COUNTRY.	Name of Ruler, Etc.	Access'n.
Abyssinia.....	Waizeru Zauditu (1876), <i>Empress</i> , daughter of Menelek.....	1916
Afganistan.....	Amanullah Khan (1892), <i>Amir</i> , son of Habibullah.....	1919
Albania.....	Provisional government, under the Ailles.....	.....
Argentina.....	Marcelo T. de Alvear, <i>President</i> , term, six years.....	1922
Australia.....	Lord Forster, <i>Governor General</i>	1920
Austria.....	Dr. Michael Hainisch, <i>President</i> , National Assembly.....	1921
Belgium.....	Albert (1875), <i>King</i> , nephew of Leopold II.....	1909
Bhutan (Br. Protectorate) ..	Sir Ugyen Wangchuck, <i>Maharajah</i>	1907
Bolivia.....	Dr. Bautista Saavedra, <i>Provisional President</i> ; term, four years.....	1921
Brazil.....	Arturo Bernades, <i>President</i> ; term, four years.....	1922
Bulgaria.....	Boris III. (1894), <i>Czar</i> , son of Ferdinand.....	1918
Cambodia.....	Sisowath, <i>King</i> (French protectorate).....	1904
Canada.....	Gen. Lord Byng, <i>Governor General</i> ; Mackenzie King, <i>Premier</i>	1921
Chile.....	Arturo Alessandri, <i>President</i> ; term, five years.....	1920
China.....	Hsu Shi Chang (1853), <i>President</i>	1918
Colombia.....	Gen. Pedro Nel Ospina, <i>President</i> ; term, four years.....	1922
Costa Rica.....	Julio Acosta Garcia, <i>President</i> ; term, four years.....	1920
Cuba.....	Dr. Alfredo Zayas, <i>President</i> ; term, four years.....	1921
Czechoslovakia.....	Thomas G. Masaryk (1850), <i>President</i>	1920
Danzig.....	Gen. Sir Richard Haking, <i>High Commissioner</i>	1921
Denmark.....	Christian X. (1870), <i>King</i> , son of Frederik VIII.....	1912
Dominican Republic.....	Juan Bautista y Burgos, <i>Provisional President</i>	1922
Ecuador.....	Dr. Jose Tamayo, <i>President</i> ; term, four years.....	1920
Egypt.....	Fuad I. (1868), <i>King</i> (formerly Sultan).....	1922
Esthonia.....	Konstantin Pats, <i>State Head</i>	1920
Finland.....	Dr. K. J. Stahiberg (1865), <i>President</i> ; term, six years.....	1919
Fiume.....	Prof. Riccardo Zaneila, <i>President</i>	1921
France.....	Alexandre Millerand (1859), <i>President</i> ; term, seven years.....	1920
Germany.....	Friedrich Ebert (1870), <i>President</i> ; term expires June 30, 1925.....	1919
Greece.....	George II., <i>King</i>	1922
Guatemala.....	Gen. Jose M. Oreilana, <i>President</i> ; term, six years.....	1922
Haiti.....	Louis Borno, <i>President</i> (under American quasi protectorate).....	1922
Hejaz, The.....	Husein Ibn Ali, <i>King</i>	1916
Honduras.....	Gen. R. L. Gutierrez, <i>President</i> ; term, four years.....	1920
Hungary.....	Admiral Nicholas von Horthy, <i>Regent</i>	1920
Iceland.....	Christian X. (1870).....	1912
India (British).....	The Earl of Reading, <i>Viceroy</i>	1921
Irish Free State.....	William T. Cosgrave, <i>President</i> of Dail Eireann.....	1922
Italy.....	Victor Emmanuel III. (1869), <i>King</i> , son of Humbert I.....	1900
Japan.....	Yoshihito (1879), <i>Emperor</i> ; Crown Prince Hirohito, <i>Regent</i>	1912
Jugo-Slavia.....	(See Serbs, Croats and Slovenes, Kingdom of).....	.....
Latvia.....	Jan Chakste, <i>President</i>	1922
Liberia.....	Charles D. B. King, <i>President</i> ; term, four years.....	1920
Liechtenstein.....	John II. (1840), <i>Prince</i>	1858
Lithuania.....	A. Stulginskis, <i>President</i>	1922
Luxemburg.....	Charlotte (1896), <i>Grand Duchess</i>	1919
Mesopotamia (The Iraq) ..	Faisal I., <i>King</i>	1921
Mexico.....	Gen. Alvaro Obregon, <i>President</i> ; term, four years.....	1920
Monaco.....	Louis (1870), <i>Prince</i> , son of Albert.....	1922
Morocco.....	Mulai Yusef, <i>Sultan</i> , son of Mulai Hassan.....	1912
Nepal.....	Tribhubana Bir Bikram (1906), <i>Shah</i>	1911
Netherlands.....	Wilhelmina (1880), <i>Queen</i> , daughter of William III.....	1890
Newfoundland.....	Sir C. A. Harris, <i>Governor</i> ; M. P. Cashin, <i>Prime Minister</i>.....	.....
New Zealand.....	Viscount Jellicoe, <i>Governor General</i> ; W. F. Massey, <i>Premier</i>	1921
Nicaragua.....	Gen. Emiliano Chamorra, <i>President</i> ; term, four years.....	1921
Norway.....	Haakon VII. (1872), <i>King</i> , son of Frederik VIII. of Denmark.....	1905
Oman.....	Seyvid Taimur, <i>Sultan</i> , son of Seyvid Feysil.....	1913
Palestine.....	Sir Herbert L. Samuel, <i>British High Commissioner</i>	1920
Panama.....	Dr. Beilsario Porras, <i>President</i> ; term, four years.....	1920
Paraguay.....	Dr. Eusebio Ayala, <i>President</i> ; term, four years.....	1921
Persia.....	Ahmed Mirza (1898), <i>Shah</i> , son of Mohammed Ali.....	1909
Peru.....	Augusto B. Legula, <i>President</i> ; term, four years.....	1919
Poland.....	Joseph Pilsudski (1867), <i>President</i>.....	.....
Portugal.....	Dr. Antonio J. d'Almeida (1865), <i>President</i> ; term, four years.....	1919
Prussia.....	Herr Otto Braun, <i>Premier</i>	1922
Rome, See and Church of..	Pius XI. (1857).....	1922
Roumania.....	Ferdinand I. (1865), <i>King</i> , nephew of late King Carol.....	1914
Russia.....	Governed by Soviet Commissaries headed by Lenin.....	1918
Salvador.....	Jorge Melendez, <i>President</i> ; term, four years.....	1919
Serbs, Croats and Slovenes, Kingdom of.....	Alexander, <i>King</i> , son of King Peter.....	1921
Slam.....	Chao Fa Maha Vajiravudh (1881), <i>King</i> , son of Chulalongkorn I.....	1910
South Africa, Union of.....	Prince Arthur of Connaught, <i>Governor General</i> ; J. C. Smuts, <i>Premier</i>	1920
Spain.....	Aifonso XIII. (1886), <i>King</i> , son of Aifonso XII.....	1886
Sweden.....	Gustaf V. (1858), <i>King</i> , son of Oscar II.....	1907
Switzerland.....	The republic chooses a <i>President</i> each year.....	1922
Syria (French Mandate).....	Gen. Henri Gouraud, <i>High Commissioner</i>	1920
Tunis.....	Sidi Mohammed ed Habib, <i>Ben</i>	1922
Turkey.....	Mustapha Kemal Pasha, <i>President</i> of Grand National Assembly. Abdul Medjid Bey (1868), <i>Caliph</i>	1922
Ukraineia.....	Governed by Soviet Commissaries.....	.....
United Kingdom.....	George V. (1865), <i>King</i> and <i>Emperor</i> of India, son of Edward VII.....	1910
United States.....	Warren G. Harding, <i>President</i> ; term, four years.....	1921
Uruguay.....	Dr. Baltasar Brum, <i>President</i> ; term, four years.....	1919
Venezuela.....	Gen. Juan Vicente Gomez, <i>President</i> term, four years.....	1922
Zanzibar.....	Seyvid Khalifabin Harub (1879), <i>Sultan</i>	1911

BIRTH STONES.

January—Garnet.	February—Amethyst.	March—Bloodstone and aquamarine.	April—Diamond.	September—Sapphire.	October—Opal and tourmaline.
May—Emerald.	June—Pearl and moonstone.	July—Ruby.	August—Sardonyx and peridot.	November—Topaz.	December—Turquoise and iapis-lazuli.

A Study of the World Almanac: Continued

Read the general headings, also the heading of each column of the specimen entry from a *World Almanac* on the opposite page, which lists American cities ranging in alphabetical order from J to S.

Answer the following questions:

- 1. When was Macon, Georgia, incorporated?
- 2. What is the debt of New York City?
- 3. How many square miles are covered by Philadelphia?
- 4. What is the assessed valuation of Portland, Oregon?
- 5. What is the tax levy of Los Angeles, California?
- 6. What is the budget of Madison, Wisconsin?
- 7. Which city was incorporated at the earliest date?
- 8. Which city, aside from New York, has the largest budget?
- 9. Is the tax levy of Newark, New Jersey, as high as its budget?

Below is given a table comparing wholesale prices from the year 1913 through 1922. Consult it and notice that the first column, headed *Commodities*, is classified, and that there is no alphabetical arrangement.

Under *Foodstuffs*, compare the price of a quart of milk, wholesale, in New York, 1913, with the price in 1922.

Under *Hides, leather, textiles*, compare the price of wool for the same years.

Under *metals*, compare the price of steel rails for the same years.

120 Comparative Wholesale Prices.

COMPARATIVE WHOLESALE PRICES OF COMMODITIES.						
THE following data from "Bradstreet's Journal" show ruling prices on November 1 for commodities:						
COMMODITIES.	1922.	1921.	1920.	1917.	1915.	1913.
FOODSTUFFS, ETC.						
Wheat, No. 2, red Winter, in elevator, per bu.	\$1.3725	\$1.335	\$2.38	\$2.27	\$1.25	\$0.98
Corn, No. 2, mixed, in elevator, per bush....	.845	.61	1.33	2.15	.76	.80
Oats, in elevator, per bush.....	.55	.47	.66	.65	.415	.445
Barley, No. 2 (Milwaukee), per bush.....	.65	.69	1.07	1.44	.64	.79
Rye, Western, per bush.....	.98	1.05	1.99	1.98	1.08	.70
Flour, straight Winter, per barrel.....	5.75	6.00	10.50	10.75	5.20	4.15
Beeves, best, native steers (Chic.), per 100 lbs.	12.50	9.75	17.25	17.65	10.30	9.70
Sheep, prime (Chic.), per 100 lbs.....	7.00	4.25	7.50	12.50	6.50	5.15
Hogs, prime (Chic.), per 100 lbs.....	8.05	7.20	15.10	19.50	7.50	8.00
Milk (New York), per quart.....	.125	.1225	.131	.10	.06	.0505
Eggs, State, fresh (New York), per dozen....	.54	.50	.72	.46	.35	.38
Beef, family, per barrel.....	15.00	15.00	25.00	32.00	18.00	19.00
Pork, new mess, per barrel.....	29.00	25.00	31.00	48.50	17.00	23.25
Bacon, short ribs, smoked (Chic.), per lb.....	.1375	.10	.20	.30	.11875	.1250
Hams, smoked, per lb.....	.22	.25	.37	.29	.17	.16
Lard, Western steam, per lb.....	.11	.1025	.1975	.25	.0915	.1070
Butter, creamery, State, best, per lb.....	.50	.45	.615	.4625	.2875	.32
Cheese, choice East factory, per lb.....	.265	.22	.285	.2625	.1575	.155
Mackerel, No. 1, bays (Boston), per barrel...	32.00	25.00	25.00	27.00	21.00	22.00
Codfish, large dried, per quintal.....	11.00	14.00	14.00	10.50	8.00	8.00
Coffee, Rio, No. 7, per lb.....	.1075	.0825	.0775	.08625	.07	.1075
Sugar, granulated, per lb.....	.07	.055	.13	.084	.0515	.0435
Tea, Formosa Oolong, superior, per lb.....	.25	.19	.20	.28	.185	.17
Molasses, New Orleans, prime, per gallon....	.57	.30	.95	.53	.40	.35
Salt, fine domestic, sacks, 224 pounds.....	1.59	1.87	2.27	1.42	1.10	1.08
Rice, domestic, good, per lb.....	.0725	.0675	.13	.095	.05875	.065
Beans (New York), choice marrow, per 100 lbs.	7.00	6.00	10.50	14.25	8.25	5.35
Peas, choice (New York), per 100 lbs.....	6.50	5.50	10.00	10.00	4.95	3.00
Potatoes, Eastern, per 180 lbs.....	2.75	4.25	3.50	4.00	2.50	2.10
Apples (State), per barrel.....	5.00	5.00	4.25	2.50	2.50	2.50
Lemons, choice, per box, 300s.....	8.00	6.00	2.00	10.50	4.00	5.50
Raisins, layer, per lb.....	.13	.165	.245	.095	.085	.0725
HIDES, LEATHER, TEXTILES.						
Native steer hides, No. 1, per lb.....	.225	.145	.27	.335	.26	.1975
Hemlock, packer, middleweight, No. 1, per lb..	.35	.34	.52	.50	.34	.31
Cotton, middling uplands, per lb.....	.247	.211	.25	.2525	.1195	.1410
Wool, Ohio & Pa. X, washed (Boston), per lb.	.57	.345	.65	.75	.30	.23
Silk, best No. 1, filature, per lb.....	8.40	6.05	6.45	6.10	3.75	3.875
Print cloths, 64s (Boston), per yard.....	.08	.065	.10	.075	.03625	.04
Standard sheetings (Boston), per yard.....	.15	.13	.20	.15	.0750	.0825
METALS, COAL, OILS.						
Iron ore, old range, Bess'r, hematite, per ton..	5.95	6.45	7.45	5.95	3.75	4.40
Pig, No. 1, foundry, Eastern (N. Y.), per ton..	34.27	24.52	55.52	33.00	16.75	16.13
Steel billets, Bessemer (Pittsburgh), per ton..	40.00	29.00	55.00	60.00	25.00	22.00
Steel rails, Standard (Pittsburgh), per ton....	43.00	45.00	55.00	38.00	28.00	28.00
Tin plate, American (Pittsburgh), per 100 lbs..	4.75	5.25	9.00	12.00	3.10	3.40

A Specimen Entry from a World Almanac

Statistics of American Cities.

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STATISTICS OF THE CHIEF CITIES IN THE UNITED STATES—Continued.

NAME.	In- corp.	Popula- tion.	Square Miles.	Debt.	Realty Ass'd Valuation.	Tax Levy.	Budget.
				Dollars.	Dollars.	Dollars.	Dollars.
Jackson, Mich.....	1857	48,374	9.0	1,907,104	60,219,485	749,581	1,091,841
Jacksonville, Fla.....	1832	91,558	15.35	6,731,651	59,686,820	1,411,063	2,271,770
Jersey City, N. J.....	1870	298,103	19.2	27,071,626	412,715,131	16,060,102	17,318,565
Johnstown, Pa.....	1889	67,327	5.76	2,262,141	71,639,710	32 mills	694,617
Joliet, Ill.....	1872	38,442	4.5	123,930	8,939,780	325,000	600,000
Joplin, Mo.....	1873	29,902	14.16	340,012	35,000,000	1.20 per 1,000	260,800
Kansas City, Kan.....	1886	101,177	20.25	8,611,656	118,930,426	1,412,811	1,412,811
Kansas City, Mo.....	1853	324,410	60.0	7,480,129	240,474,730	3,760,000	5,365,000
Knoxville, Tenn.....	1792	77,818	26.5	8,608,885	100,000,000	1,500,000	1,500,000
La Crosse, Wis.....	1856	30,421	11.25	1,028,350	41,766,067	.....	.....
Lakewood, Ohio.....	1911	41,732	6.0	4,308,708	79,053,820	500,000	400,000
Lancaster, Pa.....	1818	53,150	4.0	750,000	1,000,000	350,000	600,000
Lansing, Mich.....	1859	57,327	11.25	4,992,300	122,030,016	1,037,450	1,037,450
Lawrence, Mass.....	1853	94,270	7.25	3,609,344	107,614,755	3,108,483	3,441,006
Lima, Ohio.....	1842	41,326	7.71	3,489,845	31,212,150	355,756	355,756
Lincoln, Neb.....	1871	54,948	12.41	794,900	62,501,100	7 mills	579,300
Little Falls, N. Y.....	1895	13,029	4.0	635,000	7,590,507	228,095	228,095
Little Rock, Ark.....	1837	65,142	17.0	1,125,000	38,255,195	5 mills	724,559
Lockport, N. Y.....	1865	21,308	7.0	1,126,630	14,203,237	690,162	909,545
Los Angeles, Cal.....	1850	576,673	36.62	34,073,537	784,418,770	7,844,188	11,236,900
Louisville, Ky.....	1828	234,891	40.0	12,971,900	264,000,000	2.00 per 1,000	5,000,000
Lowell, Mass.....	1836	112,759	14.1	5,833,291	128,610,023	4,222,172	3,678,275
Lynn, Mass.....	1850	99,148	11.33	4,341,257	87,434,880	3,576,018	4,600,000
Lynchburg, Va.....	1786	30,070	7.5	2,835,893	.....	1.95 per 1,000	1,000,000
Macon, Ga.....	1823	52,995	10.0	1,600,000	30,000,000	650,000	760,000
Madison, Wis.....	1856	38,378	6.42	2,804,136	85,128,085	2,553,842	3,350,000
Malden, Mass.....	1882	49,103	4.8	812,900	*46,126,279	33.7 per 1,000	1,408,000
Manchester, N. H.....	1846	78,384	33.9	3,675,568	64,578,167	2,811,577	1,772,184
Mansfield, Ohio.....	1828	27,824	4.73	775,340	44,517,870	988,297	1,219,247
Meriden, Conn.....	1867	29,867	16.0	805,000	43,536,624	23 per 1,000	1,089,698
Miami, Fla.....	1896	29,571	15.0	4,500,000	61,000,000	1,100,000	735,000
Middletown, N. Y.....	1888	18,420	3.63	664,703	21,898,683	404,050	.....
Milwaukee, Wis.....	1846	457,147	25.87	23,965,500	681,198,160	25,550,997	24,006,925
Minneapolis, Minn.....	1867	380,582	53.29	38,000,000	208,178,035	17,000,000	15,000,000
Mobile, Ala.....	1814	60,777	17.93	3,525,000	46,609,624	350,000	350,000
Moline, Ill.....	1872	30,734	7.84	171,500	12,000,000	350,000	500,000
Montclair, N. J.....	1894	28,810	6.16	4,546,308	5,725,851	1,990,871	1,986,553
Mount Vernon, N. Y....	1892	42,726	4.5	.....	76,860,765	2,169,264	2,169,464
Muskegon, Mich.....	1873	36,570	6.65	1,870,000	40,223,950	611,000	611,000
Nashua, N. H.....	1853	28,379	32.02	1,048,943	38,000,000	960,000	1,000,000
Nashville, Tenn.....	1848	118,342	18.0	10,881,000	86,900,970	1,993,598	2,410,000
Newark, N. J.....	1836	414,524	24.0	34,586,578	542,419,578	19,654,326	22,104,716
Newark, Ohio.....	1860	26,718	4.0	1,206,935	40,000,000	275,000	315,000
New Bedford, Mass....	1847	121,217	19.39	11,220,281	112,839,725	5,334,190	5,919,000
New Britain, Conn.....	1871	59,316	12.0	3,970,598	51,000,000	1,962,536	1,955,665
New Brunswick, N. J....	1863	32,779	4.5	1,251,833	24,909,270	1,372,398	853,131
Newburgh, N. Y.....	1865	30,366	4.0	987,371	26,578,976	512,000	555,469
New Castle, Pa.....	1869	44,938	8.2	525,587	29,157,550	307,700	339,150
New Haven, Conn.....	1784	162,537	17.9	7,210,650	242,000,000	6,000,000	6,000,000
New London, Conn.....	1784	25,688	6.0	2,259,542	33,686,841	926,393	1,202,380
New Orleans, La.....	1805	387,219	264.56	38,594,954	295,873,805	31.20 per 1,000	.....
Newport, R. I.....	1784	30,255	7.3	1,680,444	47,598,250	1,241,006	1,422,578
New Rochelle, N. Y....	1899	36,213	10.2	2,945,335	81,350,123	2,334,748	3,045,844
New York, N. Y.....	1653	5,620,048	318.0	1,067,082,137	10,249,991,835	286,077,228	350,601,570
Norfolk, Va.....	1845	115,777	9.32	16,179,832	122,850,600	4,797,314	4,780,692
North Adams, Mass....	1895	22,282	21.0	836,645	15,332,376	806,275	700,000
Oakland, Cal.....	1852	216,361	60.24	6,655,490	180,000,000	2.25 per 1,000	4,711,890
Ogden, Utah.....	1851	32,804	16.0	1,900,000	15,000,000	350,000	550,000
Olean, N. Y.....	1893	20,506	5.5	961,892	14,386,551	372,855	372,855
Omaha, Neb.....	1857	191,601	37.8	24,000,000	326,162,292	21.75 per 1,000	7,094,000
Orange, N. J.....	1872	33,268	2.2	1,965,546	30,827,170	1,148,761	1,146,355
Pasadena, Cal.....	1886	45,354	15.88	2,128,975	86,820,850	1.07 per 1,000	2,500,000
Passaic, N. J.....	1873	63,841	3.0	3,818,217	71,255,009	1,737,678	2,042,262
Paterson, N. J.....	1851	135,875	5.38	7,000,000	120,224,775	33.34 per 1,000	2,221,529
Pawtucket, R. I.....	1886	64,248	8.94	5,686,188	60,916,700	2,034,858	2,178,371
Pensacola, Fla.....	1832	31,035	9.75	.....	17,018,841	.....	482,289
Peoria, Ill.....	1843	76,121	9.3	345,250	29,388,811	802,008	996,000
Petersburg, Va.....	1784	31,012	4.0	1,884,000	28,000,000	600,000	850,000
Philadelphia, Pa.....	1854	1,823,779	129.71	160,795,950	2,053,768,000	2.70 per 1,000	56,000,000
Phoenix, Ariz.....	1831	29,053	5.16	3,643,000	46,289,885	689,664	965,414
Pittsburgh, Pa.....	1816	588,343	45.65	40,523,947	868,117,930	12,648,412	18,558,099
Port Huron, Mich.....	1857	25,944	7.9	1,307,230	29,124,750	496,752	495,000
Portland, Me.....	1832	69,272	21.57	3,781,771	95,000,000	3,236,216	3,480,716
Portland, Ore.....	1850	258,288	66.3	30,782,426	241,850,435	3,750,559	3,743,139
Providence, R. I.....	1832	237,595	18.28	13,486,723	299,789,210	9,484,091	10,561,151
Pueblo, Colo.....	1870	43,050	14.43	855,337	33,132,112	457,570	471,570
Quincy, Mass.....	1889	47,876	16.7	2,066,700	.....	2,178,994	1,747,679
Racine, Wis.....	1849	58,593	6.13	.....	80,387,279	2,037,233	1,500,000
Raleigh, N. C.....	1792	24,418	7.0	1,250,000	38,000,000	400,000	516,000
Reading, Pa.....	1847	107,784	9.5	2,192,631	98,844,778	1,136,447	1,220,765
Richmond, Ind.....	1840	26,765	2.0	454,500	36,000,000	310,500	307,946
Richmond, Va.....	1782	171,667	26.0	13,384,867	173,351,000	4,459,780	7,225,917
Rochester, N.Y.....	1834	295,750	32.0	26,609,460	359,180,248	10,599,083	14,051,083
Rock Island, Ill.....	1841	35,177	10.5	173,884	12,746,133	315,752	756,461
Rockford, Ill.....	1880	65,651	10.82	920,600	43,877,755	1,795,721	3,000,000
Rome, N.Y.....	1870	26,341	74.0	941,394	21,055,442	372,460	372,460
Sacramento, Cal.....	1849	65,908	13.92	6,034,290	76,974,188	1,351,148	1,663,559
Saginaw, Mich.....	1857	61,903	16.0	2,650,000	65,850,000	1,054,650	1,400,000
St. Joseph, Mo.....	1851	77,939	13.75	95,708	45,653,000	1.20 per 1,000	844,000
St. Louis, Mo.....	1823	772,897	61.50	12,123,388	977,000,000	\$25 per \$1,000	21,213,379
St. Paul, Minn.....	1854	234,698	54.44	12,962,722	152,098,087	7,035,450	9,000,000
Salem, Mass.....	1836	42,529	8.0	2,407,000	37,285,255	33.10 per 1,000	2,021,343
Salt Lake City, Utah...	1860	118,110	51.9	6,258,500	187,847,149	2,141,457	2,887,363
San Antonio, Tex.....	1837	161,379	36.0	6,500,000	170,000,000	2,961,000	2,300,000
San Diego, Cal.....	1850	74,683	78.0	10,551,447	100,136,644	2.10 per 1,000	2,327,256

* Includes personal.

A Study of the World Almanac: Continued

Read the general headings, and also the heading of each column of the specimen entry from a *World Almanac*, on the opposite page.

The specimen entry covers the names of colleges beginning with A and B, and a number beginning with C.

Answer the following questions:

1. Which college on the page has the largest number of students?
 2. Which college has the fewest students?
 3. Where is Brown university located?
 4. How large is the teaching force of Boston university?
 5. Where is Colorado university located?
 6. Who was president of Bryn Mawr when this sheet was prepared?
 7. In what year was Chicago university founded?
 8. Which three colleges have eleven teachers each?
 9. Which college was the first to be organized?
 10. Which college was the last to be organized?
-

Page 16 is a sample entry from a *World Almanac*, showing how associations and societies in the United States are given, together with their officers and addresses.

Each society is also entered in the index under its own name.

Turn to page 16 under *Automobile Association, American*, and give:

- 1:
 - a. Date of founding.
 - b. Address.
 - c. Number of members.
 - d. Acting Executive Chairman.
 - e. Secretary.
- 2:
 - a. Read the entries for:
Authors' League of America.
Arts, American Federation of.
 - b. Glance over the page, noting other associations.

A Specimen Entry from a World Almanac

United States—Colleges.

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AMERICAN COLLEGES AND UNIVERSITIES.

This list is based on the 1921-1922 Education Directory of the United States Bureau of Education, Dept. of the Interior.
Where the name of the institution is in italics, the figures are from the 1922 ALMANAC. In other cases the data are from questionnaires returned by the institution in the year 1922.

NAME.	Location.	Year Organ	Governing Official.	No. of Stud'ts.	No. of Teach's
<i>Abilene Christian</i>	Abilene, Tex.....	1906		498	34
Adelphi College.....	Brooklyn, N. Y.....	1896	F. D. Blodgett, LL. D.....	460	26
Adrian.....	Adrian, Mich.....	1858	H. L. Feeman.....	165	16
Akron Municipal Univ.....	Akron, Ohio.....	1870	P. R. Kolbe.....	785	75
Alabama, Univ. of.....	Tusealoosa, Ala.....	1831	G. H. Denny, LL. D.....	1,633	95
Alabama, Woman's Col. of.....	Montgomery, Ala.....	1909	M. W. Swartz.....	382	29
Albany.....	Albany, Ore.....	1866	A. M. Williams.....	213	15
Albion.....	Albion, Mich.....	1861	J. W. Laird.....	590	35
Albright College.....	Myerstown, Pa.....	1895	L. C. Hunt, A.M., D.D.....	192	17
Alfred Univ.....	Alfred, N. Y.....	1836	B. C. Davis, LL. D.....	360	45
Allegheny College.....	Meadville, Pa.....	1815	F. W. Hixson, LL. D.....	565	35
Alma.....	Alma, Mich.....	1886	H. M. Crooks, LL. D.....	276	21
American Univ.....	Washington, D. C.....	1891	J. W. Hamilton.....	150	16
Amherst.....	Amherst, Mass.....	1821	A. Melklejohn.....	528	50
<i>Anderson Col. for Women</i> ...	Anderson, S. C.....	1910		325	27
Antioch College.....	Yellow Springs, Ohio.....	1853	A. E. Morgan.....	208	47
Arizona, Univ. of.....	Tucson, Ariz.....	1885	F. C. Lockwood.....	1,190	100
Arkansas.....	Batesville, Ark.....	1872	W. S. Laey.....	150	14
Arkansas, Univ. of.....	Fayetteville, Ark.....	1871	J. C. Futrall.....	1,054	110
Armour Inst. of Tech.....	Chicago, Ill.....	1893	H. M. Raymond.....	730	70
Asbury College.....	Wilmore, Ky.....	1889	Dr. H. C. Morrison.....	580	42
Ashland College.....	Ashland, Ohio.....	1878	E. E. Jacobs, Ph. D.....	191	15
Atlanta Univ.....	Atlanta, Ga.....	1867	E. T. Ware.....	549	39
Atlantic Christian Col.....	Wilson, N. C.....	1902	H. S. Hilley.....	160	17
Augsburg Sem.....	Minneapolis, Minn.....	1869	G. Svardrup.....	130	19
Aurora.....	Aurora, Ill.....	1893	O. R. Jenks.....	85	11
Austin.....	Sherman, Tex.....	1849	T. S. Clyce, D.D., LL. D...	283	14
Baker Univ.....	Baldwin City, Kan.....	1858	O. G. Marlham.....	469	31
Baldwin-Wallace.....	Berea, Ohio.....	1846	A. B. Storms.....	991	47
Barnard College.....	New York, N. Y.....	1889	N. M. Butler.....	750	104
Bates.....	Lewiston, Me.....	1864	C. D. Gray.....	556	40
Baylor College (Fem.).....	Belton, Tex.....	1845	J. C. Hardy.....	1,200	60
Baylor Univ.....	Waco and Dallas, Tex...	1845	S. P. Brooks, A.M., LL. D...	1,694	186
Beaver College.....	Beaver, Pa.....	1853	J. M. Thoburn, Jr.....	273	22
Beloit College.....	Beloit, Wis.....	1846	M.A.Brannon, Ph.D.,LL.D.	540	51
Benedict College.....	Columbia, S. C.....	1870	Rev. C. B. Antisdell.....	813	36
Berea.....	Berea, Ky.....	1858	Board of Trustees.....	2,550	141
Bethany College.....	Lindsborg, Kan.....	1881	E. F. Piheflas.....	919	35
Bethany College.....	Bethany, W. Va.....	1840	C. Goodnight.....	290	24
Bethel.....	Newton, Kan.....	1887	J. H. Langenwalter.....	234	19
Birmingham-Southern.....	Birmingham, Ala.....		G. E. Snavelly, Ph. D.....	496	34
Blue Mountain.....	Blue Mountain, Miss.....	1873	W. T. Lowrey, LL. D.....	300	27
Blue Ridge.....	New Windsor, Md.....	1899		201	21
Bluffton College.....	Bluffton, Ohio.....	1900	S. K. Mosiman, Ph. D.....	320	23
Boston.....	Chestnut Hill, Mass.....	1863	Rev. W. Devlin, S. J.....	796	38
Boston Univ.....	Boston, Mass.....	1869	L. H. Murlin, D.D., LL.D...	8,104	362
Bowdoin.....	Brunswick, Me.....	1794	K. C. M. Sills.....	450	35
Bradley Poly. Inst.....	Peoria, Ill.....	1897	T. C. Burgess.....	1,459	46
Brenau.....	Gainesville, Ga.....	1878	H. J. Pearce.....	450	40
Bridgewater College.....	Bridgewater, Va.....	1880	P. A. Bowman.....	230	22
Brown Univ.....	Providence, R. I.....	1764	W.H.P.Faunce, D.D.,LL.D.	1,648	90
Bryn Mawr.....	Bryn Mawr, Pa.....	1885	Miss M. E. Parks.....	457	69
Bucknell Univ.....	Lewisburg, Pa.....	1846	E. W. Hunt, LL. D.....	998	49
Buena Vista.....	Storm Lake, Iowa.....	1891	A. M. Boyd.....	148	14
Buffalo Univ.....	Buffalo, N. Y.....	1846		1,468	238
Butler.....	Indianapolis, Ind.....	1848	Dr. R. J. Aley.....	875	37
California Inst. of Tech.....	Pasadena, Cal.....	1891	Dr. R. A. Millikan.....	480	70
California, Univ. of.....	Berkeley, Cal.....	1868	D. P. Barrows.....	14,367	1,024
Campion.....	Prairie du Chien, Wis...	1871	A. H. Rohde.....	136	20
Canisius.....	Buffalo, N. Y.....	1870	Rev. M. J. Ahern.....	320	29
Capital Univ.....	Columbus, Ohio.....	1850	Dr. Otto Mees.....	500	25
Carleton.....	Northfield, Minn.....	1866	D. J. Cowling.....	842	65
Carnegie Inst. Tech.....	Pittsburgh, Pa.....	1900	A. A. Hamerschlag, LL.D...	3,771	285
Carroll College.....	Waukesha, Wis.....	1846	W. A. Ganfield.....	323	18
Carson and Newman.....	Jefferson City, Tenn.....	1849	Dr. O. E. Sams.....	376	31
Carthage.....	Carthage, Ill.....	1870	H. D. Hoover.....	294	26
Case School Ap. Science...	Cleveland, Ohio.....	1881	C. S. Howe.....	700	68
Catholic Univ. of America...	Washington, D. C.....	1887	Rt. Rev. T. J. Shahan.....	1,835	90
Catholic Univ. of Okla.....	Shawnee, Okla.....	1915	Rev. D. Blaise.....	115	11
Cedar Crest College.....	Allentown, Pa.....	1868	W. F. Curtis.....	170	20
Cedarville College.....	Cedarville, Ohio.....	1887	W. R. McChesney, Ph. D...	122	17
Centenary.....	Shreveport, La.....	1839	Geo. S. Sexton.....	255	20
Central.....	Fayette, Mo.....	1854	P. H. Linn.....	314	14
Central Baptist.....	Conway, Ark.....	1892	D. S. Campbell.....	170	21
Central Wesleyan.....	Warrentown, Mo.....	1864	O. E. Kriege.....	372	26
Centre.....	Danville, Ky.....	1819		287	12
Central Holiness Univ.....	University Park, Iowa...	1906	Dr. J. L. Brasher.....	230	27
Charleston, College of.....	Charleston, S. C.....	1785	H. Randolph, M. A., LL. D.	123	11
Chicago, Univ. of.....	Chicago, Ill.....	1890	H. P. Judson.....	11,385	355
Chleora College.....	Columbia, S. C.....	1890	S. C. Byrd, D. D.....	335	39
Cincinnati Univ.....	Cincinnati, Ohio.....	1870	F. C. Hicks.....	4,245	384
Citadel, The.....	Charleston, S. C.....	1842	Col. O. J. Bond.....	298	22
City of N. Y., College of...	New York, N. Y.....	1847	S. E. Mezes.....	13,744	464
Clark.....	Worcester, Mass.....	1889	W. W. Atwood.....	250	30
Clark Univ.....	Atlanta, Ga.....	1870	H. A. King.....	490	20
Clarkson College of Tech...	Potsdam, N. Y.....	1896	J. P. Brooks.....	221	19
Coe College.....	Cedar Rapids, Iowa.....	1881	H. M. Gage.....	904	54
Coker.....	Hartsville, S. C.....	1908	E. W. Sikes.....	225	23
Colby.....	Waterville, Me.....	1813	A. J. Roberts, LL. D.....	486	28
Colgate Univ.....	Hamilton, N. Y.....	1819	G. P. Cutten, LL. D.....	678	48
Colorado.....	Colorado Springs, Col...	1874	Clyde Duniway, LL. D.....	700	65
Colorado School of Mines...	Golden, Col.....	1872	V. C. Alderson, A. B.....	478	30
Colorado, Univ. of.....	Boulder, Col.....	1876	George Nortin, Ph. D.....	2,715	200

A Specimen Entry from a World Almanac

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United States—Associations and Societies.

ASSOCIATIONS AND SOCIETIES IN THE UNITED STATES.

The year of establishment is in parentheses. The other figures are those of membership. For organizations not in this list, see Index. Some in this list appear elsewhere with more detail.

- Academy of Design of N. Y., Nat.** (1828), 175 W. 109th St., N. Y.; 279; Pres., E. H. Blashfield; Sec., C. C. Curran.
- Academy of Medicine, N. Y. City** (1847), 17 W. 43d St.; 1,650; Pres., Dr. G. D. Stewart; Sec., Dr. R. S. Haynes.
- Academy of Sciences, N. Y.** (1817), care Amer. Museum Nat. History, 77th St. and Central Park West; 450; Sec., R. W. Tower.
- Acorn, Colonial Order of, N. Y. Chapter** (1894), 100 Broadway, N. Y.; 125; Chancellor, C. S. Van Rensselaer.
- Actors' Equity Association** (1913), 115 W. 47th St., N. Y.; 12,000; Pres., J. Emerson; Exec. Sec., F. Gillmore.
- Actors' Fidelity League** (1919), 11 E. 45th St., N. Y.; 500; Pres., H. Miller; Sec., H. Kyle.
- Actors' Fund of America** (1882), 701 Seventh Ave., N. Y.; 3,000; Pres., D. Frohman; Sec., W. C. Austin.
- Actuarial Society of America** (1889), 256 Broadway, N. Y.; 325; Pres., R. Henderson; Sec., J. S. Thompson.
- Advancement of Colored People, Nat. Association for the** (1909), 70 Fifth Ave., N. Y.; 110,000; Sec., J. W. Johnson.
- African Blood Brotherhood** (1919), 2299 Seventh Ave., N. Y.; 50,000; Pres., C. V. Briggs; Sec. T. Burrell.
- Albany (N. Y.) Institute and Historical and Art Society** (1791), 125 Washington Ave., Albany, N. Y.; 800; Pres., J. M. Clarke; Sec., H. H. Kohn.
- Alden Kindred of N. Y. City and Vicinity** (1921), 340 Dean St., Brooklyn; 60; Pres., John Alden; Sec., Miss C. A. Bissell.
- Alliance Francaise de N. Y.** (1907), 32 Nassau St., N. Y.; 750; Pres., C. A. Downer; Sec., M. L. Bergeron.
- Amateur Athletic Union of U. S.** (1888), 290 Broadway, N. Y.; 2,000,000; Pres., W. C. Prout; Sec., F. W. Rublen.
- Amen Corner** (1900), N. Y.; 30; Pres., L. Selbold; Sec., T. O. McGill.
- American Association for the Advancement of Science** (1874), Smithsonian Institute Bldg., Washington, D. C.; 12,000; Sec., Dr. B. E. Livingston.
- American Colleges, Association of** (1915), 111 Fifth Ave., N. Y.; 275; Pres., C. A. Richmond, Union U., Schenectady, N. Y.; Exec. Sec., R. L. Kelly.
- Amer. Board of Commissioners for Foreign Missions** (1810), Boston, Mass.; 800; Sec., J. L. Barton, D. D.; Cor. Sec., C. H. Patten, D. D.
- American College of Surgeons** (1913), 40 E. Erie St., Chicago, Ill.; 6,000; Director General, Dr. F. H. Martin.
- American Committee for Devastated France** (1918), 16 E. 39th St., N. Y.; 8,000; Exec. Ch., Miss Anne Morgan; Sec., Miss E. Scarborough.
- American Cross of Honor** (1906), Washington, D. C.; Pres., T. H. Herndon; Sec., A. M. Taylor.
- American Dramatists and Composers, Society of** (1890), 148 W. 45th St., N. Y.; 250; Pres., E. C. Carpenter; Sec., P. Wilde.
- American Federation of Labor** (1881), Washington, D. C.; 4,000,000; Pres., S. Gompers; Sec., F. Morrison.
- American Humane Education Society** (1889), 180 Longwood Ave., Boston, Mass.; 700; Pres., Dr. F. H. Rowley; Sec., Guy Richardson.
- American Institute of the City of N. Y.** (1828), 322 W. 23d St.; 500; Pres., E. F. Murdock; Sec., O. W. Ehrhorn.
- American Irish Historical Society** (1897), 132 E. 16th St., N. Y.; 1,500; Pres., Gen. J. I. C. Clarke; Sec., Gen. S. P. Cahill.
- American Legion** (1919), 1,042; Commander, A. W. Owsley, Texas; Adj., L. Bolles, Indianapolis.
- American Legion, Woman's Auxiliary** (1919), 450; Pres., Dr. K. W. Barrett, Va.; Sec., Miss P. Curnick, Indianapolis.
- American Posture League** (1913), Metropolitan Tower, 1 Madison Ave., N. Y.; 1,000; Pres., G. J. Fisher, M. D.; Sec., H. L. Taylor, M. D.
- American Scandinavian Foundation** (1911), 25 W. 45th St., N. Y.; 6,000; Pres., H. Holt; Sec., J. Creese.
- American Social Science Association** (1899), 230 Madison Ave., N. Y.; Pres., G. G. Battle; Sec., Talcott Williams, LL. D.
- American University Union in Europe, Columbia Univ., N. Y.**; Ch. Bd. of Trustees, H. P. Judson; Sec., J. W. Cunliffe.
- American Wars, Society of** (1897), 314 7th St., N. E., Washington, D. C.; 350; Commander General, Rear Admiral C. J. Badger, U. S. N.; Recorder General, Lieut. M. C. Summers.
- American Wars of the U. S., Society of, Commandery of State of N. Y.** (1910), 144 E. 74th St.; 300; Commander, Brlg. Gen. O. B. Bridgman; Sec., Lieut. C. A. Manning.
- American Woman's Press Assoc.** (1903), Washington, D. C.; 300; Pres., Mrs. M. M. North, Herndon, Va.; Sec., Miss E. J. Bailey, Wapakoneta, Ohio.
- Americans, United Order of** (1893), Milwaukee, Wis.; 10,000; Nat. Pres., R. C. Sherrard; Sec., G. W. Blann.
- Antiquarian Society, American** (1812), Worcester, Mass.; 175; Pres., W. Lincoln; Sec., T. H. Gage.
- Anti-Saloon League of America** (1895), Westerville, Ohio; Pres., Bishop T. Nicholson, D. D., Chicago; Gen. Supt., Rev. P. A. Baker, D. D.; Sec., Rev. S. E. Nicholson, LL. D., Richmond, Ind.
- Anti-Saloon League of N. Y.** (1899), 906 Broadway; Supt., W. H. Anderson; Sec., G. C. Moor, D. D.
- Architectural League of N. Y.** (1888), 215 W. 57th St., N. Y.; 825; Pres., H. Greenley; Sec., R. F. Whitehead.
- Architects, American Institute of** (1857), Octagon House, Washington, D. C.; 2,540; Pres., W. B. Faville; Sec., W. S. Parker.
- Architects, N. Y. Society of** (1906), 29 W. 39th St., N. Y.; 400; Pres., J. R. Gordon; Sec., O. W. Johnson.
- Art Alliance of America** (1914), 65 E. 56th St., N. Y.; 1,000; Pres., Hon. H. White; Sec., Mrs. H. E. Brewer.
- Art Center, Inc.** (1920), 65 E. 56th St., N. Y.; 3,000; Pres., Helen S. Hitchcock; Sec., R. Greenleaf.
- Art Society of N. Y., Municipal** (1898), 119 E. 19th St.; 800; Pres., J. H. Hunt; Sec., Mrs. H. B. Keen.
- Artists, Society of Independent** (1916), 1947 Broadway, N. Y.; 600; Pres., J. Sloan; Sec., A. S. Baylinson.
- Arts, American Federation of** (1909), 1741 New York Ave., Washington, D. C.; 6,000; Pres., R. W. de Forest; Sec., Miss L. Mechlin.
- Arts and Letters, American Academy of** (1916), 15 W. 81st St., N. Y.; 50; Pres., W. M. Sloane; Sec., R. W. Johnson.
- Associated Advertising Clubs of the World** (1916), 110 W. 40th St., N. Y.; 25,000; Pres., L. E. Holland; Sec., J. H. Neal.
- Associated Press** (1900), 51 Chambers St., N. Y.; 1,300; Gen. Mgr., F. R. Martin; Sec., M. E. Stone.
- Association for Improving Condition of Poor, N. Y.** (1848), 105 E. 22d St., N. Y.; 22,000; Gen. Dir., B. B. Burritt; Sec., A. Nichols.
- Astronomical Society, American** (1899), Madison, Wis.; 400; Pres., W. W. Campbell; Sec., J. Stebbins.
- Audubon Societies, National Association of** (1905), 1974 Broadway, N. Y.; 5,000; Pres., T. G. Pearson; Sec., W. F. Wharton.
- Authors League of America, Inc.** (1912), 22 E. 17th St., N. Y.; 1,400; Pres., J. L. Williams; Sec., E. Schuler.
- Authors' League Fund** (1917), 22 E. 17th St., N. Y.; Pres., I. Bacheller; Sec. and Treas., E. Schuler.
- Automobile Association, American** (1902), 1108 16th St., N. W., Washington D. C.; 210,000; Act. Exec. Ch., D. H. Lewis; Sec., A. Fifoot.
- Aztec Club of 1847** (1847), Washington, D. C.; 245; Pres., Brig. Gen. H. G. Gibson, U. S. A.; Sec., Col. J. F. R. Landis, U. S. A.
- Bankers' Association, American** (1875), 5 Nassau St., N. Y.; 23,000; Pres., John H. Puelicher; Sec., W. G. Fitzwilson.
- Bankers' Association, N. Y. State** (1894), 128 Broadway, N. Y.; 1,121; Pres., H. Bissell, Buffalo, N. Y.; Sec., E. J. Gallien.
- Baptist Convention, Northern** (1907), 5109 Waterman Ave., St. Louis, Mo.; 3,500; Pres., F. E. Taylor, Indianapolis; Sec., W. C. Bitting.
- Baptist Convention, Southern, Home Mission Board** (1845), Atlanta, Ga.; 3,000,000; Cor. Sec., B. D. Gray; Treas., C. S. Carnes.
- Baptist Young People's Union of America** (1891), 125 N. Wabash Ave., Chicago, Ill.; 1,000,000; Gen. Sec., J. A. White.
- Bar Association, American** (1878), Baltimore, Md.; 17,000; Pres., J. W. Davis, of N. Y. City; Sec., W. T. Kemp, of Baltimore, Md.

Questions for Year-books

NOTE:—Numbers in margin at right of questions below, give values on scale of 100%.

- 1—a. Name the year-book which sketches the lives of prominent living people in America.
b. Name the one for persons of world fame.....5 each=10
- 2—In what part of the article in the “Who’s Who” year-books is the address of the person given?
.....=5
- 3—What are the meanings of the following abbreviations used in a condensed sketch in the
“Who’s Who” year-books?
m b s ed.....3 each=12
- 4—Should one consult a current “Who’s Who” for a sketch of a person not living?=5
- 5—What section of “Who’s Who in America” should one consult for:
a. Persons prominent in a certain locality;
b. The sketch of the life of an individual?.....4 each=8
- 6—What very inexpensive almanac gives a vast amount of information in a greatly condensed
form?.....=5
- 7—Is the index of the World Almanac placed at the front or at the back of the book?=5
- 8—Which of the year-books studied gives the names and the official addresses of the officers of any
important society in the United States, under the name of the society?.....=10
- 9—Do the events recorded in a year-book always pertain to the year on the back of the book,
or do they frequently pertain to events for the preceding year?.....=6
- 10—Would it be better to consult the World Almanac or the Statesman’s Year-book for information
in tabular form?.....=6
- 11—What encyclopaedia for young people publishes an inexpensive paper-bound annual giving
briefly the events of the year?.....=6
- 12—Which encyclopaedia keeps up to date by means of loose leaves?.....=6
- 13—Which encyclopaedia publishes a year-book every year?.....=6
- 14—What decade is covered by the last three volumes issued by the Britannica?.....=10

**Plan for Checking Work
When Training in the use of Reference Material
is organized as a
Required Feature of the Regular English Course**

Schools which use these pamphlets as a required feature of their English courses will find it convenient to have a plan for marking the lesson. For this purpose a number appears after each question to indicate its value on the scale of 100%. Because this work requires but a few days each term, students are in danger of considering it unimportant unless it is carefully guarded. A reference question in examinations emphasizes the work. If a certificate for passing in an English course is not granted unless the work in the library pamphlet for that course has been completed, the fact will be established in the student's mind that the school considers training in the use of reference books to be as necessary as is training in other educational lines.

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The pamphlet on *Webster's New International Dictionary* may be purchased at the rate of 10 cents per copy; in lots of fifty, for 8 cents each plus carriage, from the Publishers of the Dictionary.

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Foreword

This pamphlet is one of a series on the use of reference books. * The complete series constitutes a third edition of *Reference Guides That Should be Known and How to Use Them*, which appeared first in 1916 in bound form as a text book for high and normal schools.

The third edition has revised and condensed the eleven pamphlets of the second edition into eight pamphlets, one for each of the eight high school courses in English, as listed below. The revised text can also be adapted to meet the needs of college freshmen who have had no special training in the use of reference tools. No important change has been made in the subject matter. Each pamphlet contains sixteen pages; even though the subject may be new, it should be mastered in a little more than an hour's time.

List of Pamphlets in the Series

Graded to correspond with High School English Courses

English 1—Webster's New International Dictionary.

English 2—Parts of a book: Concordances.

English 3—Encyclopaedias.

English 4—Library classification and card catalogue.

English 5—Year-books.

English 6—Indexes to periodical literature.

English 7—Commercial guides.

English 8—Government publications: city, state, and federal.

It might be well to give the entire series to high school seniors, if the work has not been organized grade by grade. College freshmen could do the work independently; so also could anyone needing reference tools, club workers, for example. A survey was recently made by the faculty of one of our state universities, concerning causes of failure in the freshman college year: four statements were formulated, one of which reads as follows: "Students should be trained to use ordinary means of securing information, such as: *the table of contents, the index, the dictionary, the encyclopaedia, the card catalog, the Readers' Guide to Periodical Literature, the newspaper, the informational magazine.*" It is therefore evident that a need exists for some plan of teaching the use of reference material which can be fitted into the crowded high school and college courses without undue intrusion or expense.

These simple lessons have been prepared in the hope that they will aid students to become familiar with standard reference material. The inclusion of specimen pages from the reference books studied makes it possible for each student to follow all illustrative examples without making a trip to a library and waiting to have access to the complete reference work. No library will furnish a sufficient number of copies of expensive reference books for this purpose; neither can a library afford to have pages in expensive reference books as badly worn and marked as this work would cause them to become.

Much dependence is placed upon the co-operation of the English departments when the work is given in high schools, each teacher of English being expected to devote about three recitation periods to the pamphlets which are graded to correspond with the respective English courses taught. In college, it would seem to be a very simple matter for the rhetoric department to plan to have their freshmen read these pamphlets early in the term, either as assigned class work, or independently, time being allowed, so that the work could be done without overpressure. Satisfactory results might be assured if students understood that at the first rhetoric examination a few leading questions selected from those on the inside of the back covers of the pamphlets would be asked.

According to the library code for capitalization all words in a title begin with a lower case letter instead of with a capital, except the first word, proper nouns, and adjectives derived from proper nouns. Certain specimen pages will show that some publishers follow this code.

*The following paragraphs are taken from the
Foreword of the First Edition*

Possibly the best way of presenting the points which it is hoped this series of lessons may emphasize is to quote directly from the preface of a Bulletin on "Library instruction in universities, colleges and normal schools," from the United States Bureau of Education, 1914—No. 34.

Many educators of note, as well as college and university librarians, have emphasized the urgent necessity of instruction and training in "book-using skill." . . .

The place of the library in the work of all departments is one of increasing importance. The library is a resource or reservoir from which the student should draw constantly for information and inspiration.

. . . Every month of delay in instructing him in the meaning and use of the library lessens the efficiency of his course.

. . . Every new student should be required to take some course in which is given definite practical instruction in the handling of library tools. . . . Such a course, moreover, should not only be required, but it should constitute a definite part of the work required for a degree.

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Indexes to Periodical Literature

Indexes to the great variety of scattered articles in good magazines are indispensable for general reference work. Standard magazines constitute our best source for current literature and for information regarding current events. Many articles are of permanent value, while many others are of passing interest only.

Poole's Index to Periodical Literature

The first important index to articles in magazines was edited in 1881 by two friends, Poole and Fletcher. They conceived the idea of issuing an index for all of the best magazine articles which had appeared since the earliest magazine publications in this country. Much of the work for this enormous task was volunteered. When it was published, it comprised two large volumes, covering eighty years of magazine publication, and bore the title of: *Poole's Index to Periodical literature, Volume 1, 1802-1881*. For magazines after 1881 a volume was issued every five years until 1906, after which date the work was discontinued. The articles were indexed by subject only; portraits were indicated.

The six volumes issued are a great monument to magazine indexing, and the only guide to magazines for, practically, the 19th century. The various volumes are dated as follows:

Vol. 1: 1802-1881 (2 parts)	Vol. 4: 1892-1896
Vol. 2: 1882-1886	Vol. 5: 1897-1901
Vol. 3: 1887-1891	Vol. 6: 1902-1906

Indexes to Current Periodical Literature and

Selected United States Government Publications

The H. W. Wilson Company, 958-972 University Avenue, New York

The firm which is now doing more thorough and extensive work in the line of indexing current publications than any other firm in the world, is *The H. W. Wilson Company* of New York. They prepare indexes to nearly all of the good current magazines which are published in the English language, except those pertaining to purely technical subjects, such as dentistry, for example. The indexes, listed on page 4, guide to articles in *over six hundred* current publications, including many important publications of the *United States Government*. A thorough knowledge of the plan upon which they are arranged is indispensable for good reference work.

Agricultural Index: Issued ten times a year, indexing about 120 journals relating to agriculture and allied subjects.

Index to Legal Periodicals: Issued quarterly, indexing about 60 journals on legal subjects.

Industrial Arts Index: Issued ten times a year, indexing about 150 journals in lines of business and technical research.

International Index to Periodicals: Issued six times a year, indexing about 190 journals in the line of science and humanities.

Readers' Guide to Periodical Literature: Issued monthly, indexing about 110 important magazines for general reference.

Book Reviews in Magazines

An important feature of all standard magazines and newspapers is to inform their readers about new books. This is done by means of reviews which outline the general nature of the book, give its publisher and price, and the opinion of the editors of the magazines regarding it. A plan for bringing these reviews together and condensing them in a kind of "digested" form has been adopted by the H. W. Wilson Company, under the title of *Book Review Digest*. Consult the specimen entry from this *Digest* given below and read the first paragraph which gives the author, title, publisher, and price of the book. The second paragraph gives a one line statement of the general nature of the book. (The number at the end of the line is the Library of Congress number, needed only by librarians.) Read the third paragraph which is selected from a magazine entitled *The Independent*. How is the title of this magazine abbreviated at the end of this paragraph? Read the opinion expressed by this magazine in the fourth paragraph. The plus sign before *Ind* shows at a glance that this magazine favors the book. When a minus sign appears in the corresponding position, disfavor is indicated. Notice that the complete review of 150 words can be found in volume 107, on page 241 of the issue of *The Independent* for December 3rd, 1921.

Are the reviews from the remaining magazines favorable? Give the volume, page, month, day and year of issue, and number of words for the complete review in the *Spectator*.

Specimen Entry from Book Review Digest

BRUES, CHARLES THOMAS. Insects and human welfare. 104p il \$2.50 Harvard univ. press

632 Insects, Injurious and beneficial 21-1364

"In a slim volume of one hundred pages the author has treated of insects in relation to health, food supply, the forest, household, and the outlook for the future. . . The book gives, in brief, the entire world problem of the warfare which man must wage in order to maintain his artificial alteration of the earth's flora—his gardens, enormous wheat fields, his re-planted forests."—Ind

"All confusing details are omitted, and in well-written and balanced generalities we are presented with the principles and practices of economic entomology."

+ Ind 107:241 D 3 '21 150w

"Though popularly written, the reader is surprised on completing the book, to find what a wide range of useful as well as interesting information he has acquired." Jean Broadhurst

+ J Home Econ 13:333 J1 '21 500w

"An instructive essay."

+ Spec 127:403 S 24 '21 90w

The most popular of the Wilson indexes, and the one which is the most serviceable for general reference work, is:

The Readers' Guide to Periodical Literature

This index, which is explained in detail by means of specimen entries on following pages, will illustrate the general plan used for other magazine indexes.

Every month, the *Readers' Guide to Periodical Literature* indexes all articles in over one hundred carefully selected magazines. It includes a few important *United States Government Publications* and *English Magazines*, as do most of the other indexes. The index is arranged in one alphabetical order, and gives for all articles in each magazine indexed:

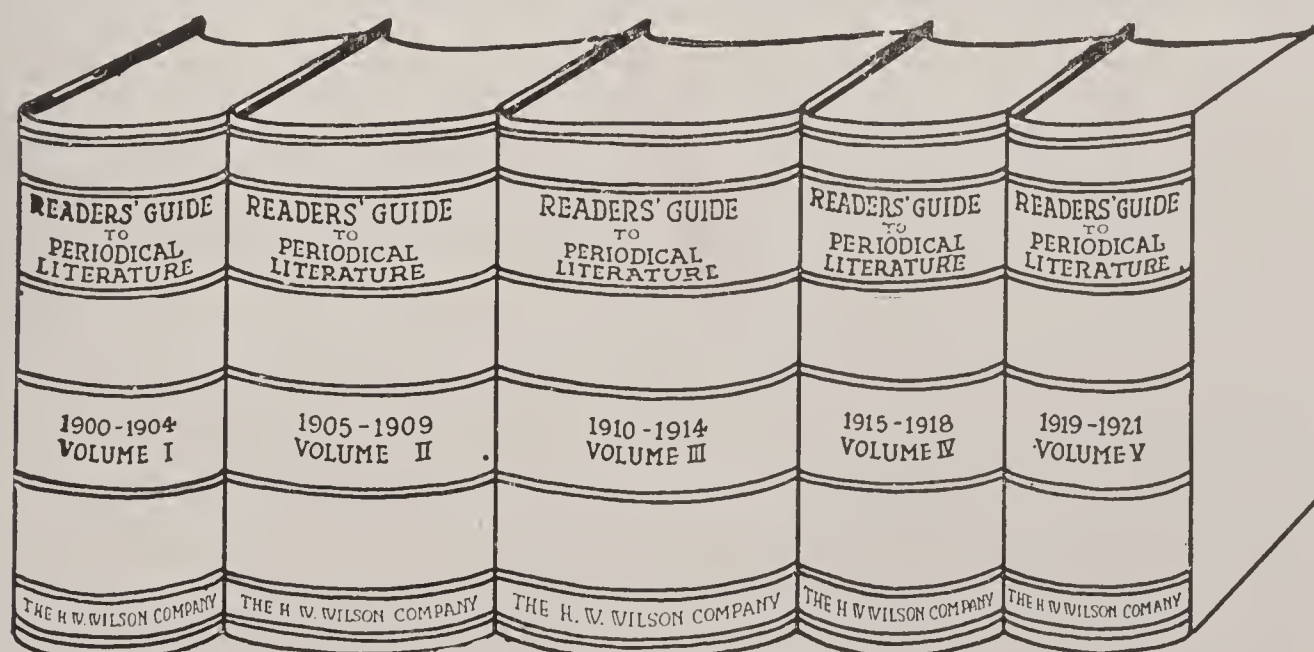
author; subject; title, if a story; portrait; poems under word *Poems*.

Plan on Which Readers' Guide is Cumulated

If each monthly issue of the *Readers' Guide* contained an index to magazines for one month only, it would be necessary to examine twelve separate indexes in order to cover magazine articles for a year's time. This plan would be very cumbersome indeed. The publishers, therefore, include, with the index of certain months, the indexes of preceding months of that year, and rearrange all references in one alphabetical order. This plan is called *cumulative*. A cumulative issue is, of course, much larger than is an issue for one month only.

The work for a *cumulated* issue is extensive, for the type of all entries in previous issues must be rearranged in one alphabetical order. Few people realize the heavy expense of such cumulations and the service which they give. It is not necessary for a user of a library to memorize the months which give full cumulation, but it is necessary for good reference work to realize that cumulation is frequent and to be alert in asking for the latest issue when consulting these indexes in a library. An annual cumulation appears for each year. These yearly issues are again cumulated into large volumes, as illustrated below. Consult the illustration and tell which years are contained in volume 3; in volume 2; in volume 5. Notice that volume 1 begins with the even year, 1900. Does the illustration show the yearly cumulated issues for magazines published in 1922 or in 1923?

Illustration of Cumulation by Years of the Readers' Guide



Explanation of Details of Entry for the Readers' Guide

Several full sized pages from the *Readers' Guide* follow, to illustrate the exact method of entering material.

The full name of the magazine is not printed when reference is made to it, but is abbreviated. An alphabetical list of abbreviations used is given at the front of every issue, and is followed by the full name of the magazine, its publisher and price. On page 9 a specimen entry is given to illustrate this plan. Consult it and tell what magazines are referred to when the *Guide* uses the following abbreviations:

Am Hist R	Cur Hist M, N Y Times
Bul Pan Am Union	Delin
Cent	Educ R

Where is the Atlantic Monthly published and what is its price?

Where are the Farmers' Bulletins published?

Consult the specimen entry for page 10 near the end of the second column and give the title and the author of the second article under the word *Food*. What is the abbreviation of the magazine in which this article appeared? Turn to the specimen page containing the *List of Periodicals Indexed* and give the full name of this magazine. The number which follows *Fortn* is the volume of the magazine, and the numbers following 109 are the pages in the 109th volume. The dash between the pages indicates the length of the article; that is, the article begins on page 398 and ends on page 407. What abbreviation indicates that the article was published in March? '18, of course, indicates the year. Read the entries for the article under *Flying thoughts* and tell what each means.

Give the abbreviation which comes just before the name of the magazine *Outing*, in the first article under *Fishing*. This abbreviation indicates that the article is illustrated. In what volume of *Outing* did this article appear? In what month of 1918 was it published? How many pages are devoted to it?

Who wrote an article about *Leo Feist*? The abbreviation *por*, which follows the author's name, indicates that a portrait of Leo Feist appears in connection with the article. If the name of the magazine in which this article appears is not recognized from the abbreviation *Am M* find it from the specimen page of *List of Periodicals Indexed*. Give the volume, number of pages, month and year for the magazine in which this article appears.

Give the reference for a portrait of Edna Ferber.

On what day in March of 1918 was a poem, by *Mahlon Leonard Fisher*, published in the *Literary Digest*? When a magazine is published more frequently than once a month, the day of the month is given to distinguish the different issues of that month.

The first article under *Fish as food* refers to a magazine entitled *Science*. The *n. s.* following the title means *new series*. Is *Science* published monthly or more frequently than once a month?

Who wrote the story entitled *Flowering bush*? Is the article illustrated? Is the story entered under the author's name also? (see page 11).

All articles of importance are entered under both author and subject. Consult the following articles and tell under what other words, either as subject or author, they would again be indexed:

Article written by *Charles Evan Fowler*. (page 11).

Article under *Flies: Effective method of fly control*.

Article entitled, *Price of safety against fire*.

Consult the entry *Finance*, and below the first article name the countries which appear as subheadings in the center of the column. Are these countries in alphabetical order?

Are countries under *Food supply* in alphabetical order?

A few lines below the word *France* find *Agriculture* in bold-faced type in the center of the column, and notice that no magazines are given under it, but that the reader is referred to the word *Agriculture* as a main topic, and to France as a sub-topic. Note the same for *Population* and for *Railroads*, under France.

Many times a subject has subdivisions under both topics and countries. In such a case, the *topics* appear first, in alphabetical order, followed by the *countries*, in alphabetical order. It is important to know this arrangement when consulting large subjects. The sub-arrangement under *Education* for example, requires several pages.

Sub-entries Under Large Subjects

The specimen entries under *Railroads*, pages 12, 13, and 14, are taken from the *Readers' Guide* to illustrate the method of subdividing large topics. Reference is made to what word after the first entry of *Railroad* (*singular, not plural*)? Glance down the entries under *Railroad*, and notice that the words following it are in alphabetical order. After the last one, *Railroad ties*, notice the plural, *Railroads*. Read the title of the first article listed under it. Directly below this title, under *see also*, find and name the first subject under which other magazine articles are listed. What is the last of these subjects? After these references, the first sub-topic under railroads, which is entered in bold-faced type in the center of the column, is *Accidents*. Read all of the bold-faced sub-topics and notice that they are in alphabetical order, the last one being *Valuations*. The next sub-topic is a geographical one beginning with *A*. Read the continents and countries on the page. Are they in alphabetical order?

Under what country is the last topic on page 13 listed? What word at the top of the first column on page 14 indicates that the references for *Railroads* in *United States*, were not completed on page 13? The sub-topic of *War measures* is entered in the center of the column a few lines from the top. After the third reference, under this sub-topic of *War measures*, the words *See also* call attention to what topic, what country under this topic, and what subdivision under the country? Find the general topic referred to, *Railroads and state*, a few lines below, in bold-faced type. Name the countries under this topic, in the center of the column, beginning with Canada. What sub-topic under United States is entered in the center of the second column, several lines from the top? *Government regulations*, the sub-topic referred to, is not on this page. Where it appears, it stands out as a sub-topic, in the center of a column as *Government operations* does.

How are the *titles* sub-arranged under *United States* in the first column? Under the sub-topic *Government operation*, the titles of the articles are again ar-

ranged alphabetically under title. Which magazine, under this sub-topic, contains an article entitled *Government as railway manager*? Which pages are referred to for volume 119? Which for volume 120? Give the *date* which refers to volume 119, and also the one for volume 120. Is the magazine referred to published more frequently than once a month?

By consulting the several subdivisions under topics and countries on pages 12-14, find the magazine, volume, page and date for:

Growth of railroads in China.

Fighting snow drifts on the railways. (Look under *topic*, *Snow protection*.)

Financing the railroads. (Find *topic*).

These many references for *Railroads*, under topics, sub-topics, countries, etc., are more or less confusing, in spite of their careful arrangement. It requires much time to examine a large number of magazine articles, hence careful judgment is necessary in selecting those which appear to fit the need best. One can judge somewhat of the length of the article by noticing the pages, if the size of the magazine is known; the general nature of the magazine will also be something of an aid, if one is familiar with it: many times the title of an article is a sufficient guide.

Many magazines issue a separate index, each year, for articles which have appeared in their own magazines.

The many *poems* published in the magazines indexed by the *Readers Guide*, are entered under author, and again under the word *Poems*, sub-arranged alphabetically by titles. An annual number requires over twenty pages to list the titles of poems indexed for one year. Consult the specimen entry on page 15, illustrating this feature, and give the following:

The name of the magazine, the volume, the date and the author under the poem entitled *Artisan*. How does one know that the magazine is published more frequently than once a month? Why would this poem be entered also under "M?"

What is the title of the last poem beginning with the word *As*? What is the title of the poem directly below it? If the alphabetical arrangement were *strictly letter by letter*, which title should be listed first? The publishers have finished listing all titles beginning with the same word before entering another title. Notice the last poem beginning with *At*, and the title of the poem following it, for another illustration of this word by word plan of alphabetizing.

Read page 16, which illustrates the *book catalogues* of *The H. W. Wilson Company*. These catalogues make it possible to find the publisher and price of almost any book printed in the United States, if the author, title, or subject of the book is known. Books sold by subscription are not included. Books are not analysed as magazines are.

Specimen Entry from
Readers' Guide to Periodical Literature
Showing Abbreviations used for Periodicals

List of Periodicals Indexed

- Am City**—American City. (C ed) City Edition. \$3. Civic Press, Tribune Building, New York.
—Same. (T and C ed) Town and County Edition. \$3.
—Same. (Both editions to one address) \$4 (C ed) or (T and C ed) in entry indicates that article is contained in City edition or Town and County edition only. Entries not so distinguished refer to either edition.
- Am Econ R**—American Economic Review. \$5. American Economic Association, Ithaca, New York.
- Am Hist Assn Rept**—American Historical Association Report. \$3 to members (including annual subscription to the American Historical Review). American Historical Association, 1140 Woodward Bldg., Washington, D. C.
- Am Hist R**—American Historical Review. \$4. \$3 to members of the American historical association (including Annual report). Macmillan Company, 66 Fifth Ave., New York.
- Am J Soc**—American Journal of Sociology. \$2. University of Chicago Press, Chicago.
- Am M**—American Magazine. \$2. Crowell Publishing Company, Springfield, O.
- Ann Am Acad**—Annals of the American Academy of Political and Social Science. \$6. \$5 to members of the Academy. 36th St. and Woodland Ave., Philadelphia.
- Arch Rec**—Architectural Record. \$3. Architectural Record Company, 115 West 40th St., New York.
- Art and Archaeol**—Art and Archaeology. \$3. Archaeological Institute of America, Washington, D. C.
- Art World**—Art World and Arts and Decoration. \$4. Hewitt Publishing Corporation, 470 Fourth Ave., New York.
- Asia**—Asia, Journal of the American Asiatic Association. \$2. Asia Publishing Co., 627 Lexington Ave., New York.
- Atlan**—Atlantic Monthly. \$4. Atlantic Monthly Company, 41 Mt. Vernon St., Boston.
- Bellman**—The Bellman. \$4. The Bellman Co., 118 South 6th St., Minneapolis, Minn.
- Bib World**—Biblical World. \$2. University of Chicago Press, Chicago.
- Bird Lore**—Bird-Lore. \$1.50. D. Appleton & Co., Harrisburg, Pa.
- Bookm**—Bookman. \$3. Dodd, Mead & Co., 4th Ave. & 30th St., New York.
- Bul Pan Am Union**—Bulletin of the Pan American Union. \$2. 17th and B Sts., N. W., Washington, D. C.
- Canad M**—Canadian Magazine. \$2.50. 200 Adelaide St. West, Toronto, Canada.
- Cath World**—Catholic World. \$3. 120-122 W. 60th St., New York.
- Cent**—Century. \$4. Century Co., 353 4th Ave., New York.
- Child Labor Bul**—Child Labor Bulletin. \$2. National Child Labor Committee, 105 East 22nd St., New York.
- Conf Char and Correc.** See Nat Conf Soc Work
- Contemp**—Contemporary Review. \$5. Leonard Scott Pub. Co., 249 West 13th St., New York.
- Country Life**—New Country Life. \$5. Doubleday, Page & Co., Garden City, N. Y.
- Cur Hist M, N Y Times**—Current History Magazine of the New York Times. \$3. New York Times Co., Times Square, New York.
- Cur Opinion**—Current Opinion. \$3. Current Literature Pub. Co., 63 W. 36th St., New York.
- Delin**—Delineator. \$1.50. Butterick Pub. Co., Butterick Bldg., Spring and MacDougal Sts., New York.
- Dial**—Dial. \$3. The Dial Pub. Co., 152 W. 13th St., New York City.
- Edin R**—Edinburgh Review. \$4.50. Leonard Scott Pub. Co., 249 West 13th St., New York.
- Educa**—Education. \$3. Palmer Co., 120 Boylston St., Boston.
- Educ R**—Educational Review. \$3. Educational Review Pub. Co., Columbia University, New York.
- El School J**—Elementary School Journal. \$1.50. University of Chicago Press, Chicago.
- Everybody's**—Everybody's Magazine. \$1.50. The Ridgeway Company, Spring & Macdougal Sts., New York.
- Farmers' Bul**—United States. Department of Agriculture. Farmers' bulletins. A limited number of copies are available for free distribution by Division of Publications, Department of Agriculture, Washington, D. C.
- Fortn**—Fortnightly Review. \$5. Leonard Scott Pub. Co., 249 West 13th St., New York.
- Forum**—Forum. \$2.50. The Forum Publishing Co., 118 East 28th St., New York
- Gard M**—Garden Magazine. \$2. Doubleday, Page & Co., Garden City, N. Y.
- Good H**—Good Housekeeping. \$1.50. 119 W. 40th St., New York.
- Harper**—Harper's Monthly Magazine. \$4. Harper & Bros., Franklin Square, New York.

Specimen Entry from Readers' Guide to Periodical Literature

Federal reserve board

Capital Issues committee

Supervision of security issues by the United States. A. B. Forbes. Nation 106:372-4. Mr 28 '18

Feeble-minded

Folly of freedom for fools. Survey 39:657 Mr 16 '18

Feist, Leo

Knows all about the popular song business. E. M. Wickes. por Am M 85:48-9 F '18

Feminism

Feminism business. Woman's H C 45:12 Ap '18
Freedom and family life. Unpop R 9:112-22 Ja '18

Fenderson, Mark

Delectable dinners. Woman's H C 45:42 Ap '18

Ferber, Edna

Joy of the job. por Am M 85:34-5 Mr '18

Ferguson, Charles

Revolution absolute. Bookm 46:647-52; 47:48-57, 160-70 F-Ap '18

Ferguson, Elsie (Louise)

Portrait. Am M 85:27 Mr '18

Fernández, José Vincente

Sketch. por Bul Pan Am Union 46:232-4 F '18

Fertilizers and manures

Fertilizer needs of the United States. H. J. Wheeler. Q J Econ 32:209-37 F '18

Feuchtinger, Eugene

New method of training the voice. Q J Speech Educ 4:93-102 Ja '18

Fiction

Eight stories of good cheer; ed. by F. H. Law. il Ind 93:418-20, 460-2, 496, 526 Mr 9-30 '18

Sentimental America. H: S. Canby. Atlan 121: 500-6 Ap '18

Spring opening in fiction. H. W. Boynton. Bookm 47:175-81 Ap '18

Story in the making. Unpop R 9:93-6 Ja '18

Filene, A. Lincoln

Status of the daylight saving plan. Am City 18:217-18 Mr '18

Filsinger, Mrs Ernst B. See Teasdale, Sara

Filters and filtration

Characteristics of a lime softening filtration plant. W. A. Sperry. il Am City 18:253-7 Mr '18

Finance

Tomorrow of finance. S. N. Patten. Ann Am Acad 76:257-71 Mr '18

Germany

Germany's financial burdens. Lit Digest 56: 90-2 Mr 2 '18

Germany's financial outlook. H. J. Jennings. 19th Cent 83:374-85 F '18

Great Britain

Levy on capital after the war. F. W. P. Lawrence. Contemp 113:308-15 Mr '18

Japan

Emergency financial measures of Japan. S. Takashima. J Pol Econ 26:302-7 Mr '18

Russia

Bolshevik repudiation. H. J. Jennings. Fortn 109:428-37 Mr '18

United States

Aside from sentiment. Ind 93:529 Mr 30 '18

United States—world banker and commercial leader. J: K. Barnes. World's Work 35:479-80 Mr '18

Flück, Henry Theophilus

Golden cock. Nation 106:300-1 Mr 14 '18

War-time pleasures of the table. Cent 95:899-904 Ap '18

Findlater, Jane Helen

Compulsory rations. Liv Age 296:551-60, 607-14 Mr 2-9 '18

Findlay, Hugh

Better garden this year. Ind 93:359 Mr 2 '18

How to plant and raise vines. Art World 3: sup5-8 Mr '18

Finland

Republic of Finland. A. Yarmolinsky. map Cur Hist M, N Y Times 7, pt2:437-41 Mr '18

Finney, Ross L.

Sociological principle determining the elementary curriculum. School and Soc 7:338-49 Mr 23 '18

Fire protection

Price of safety against fire. C: Hill. Ind Management 55:217-18 Mr '18

Sootless Saturdays. W. A. Mohrbacher. Am City 18:246 Mr '18

Fish, Carl Russell. See Paxson, Frederic L., jt. auth.

Fish as food

Contributions of zoology to human welfare. H. M. Smith. Science n s 47:299-301 Mr 29 '18

Food value and digestibility of fish and sea food. P. B. Hawk. Ladies' H J 35:59 Ap '18

Fisher, Helen Dwight

Boy, the war and the harrow. Survey 39:704-6 Mr 30 '18

Fisher, Irving

Some contributions of the war to our knowledge of money and prices; abstract. Am Econ R 8:sup257-8 Mr '18

Fisher, Mahlon Leonard

Love of children; poem. Lit Digest 56:36 Mr 9 '18

Fishing

Cast thy lure upon the waters. il Outing 72: 44-7 Ap '18

Good form in fly-casting. S. Taylor. il Outing 72:40-1 Ap '18

Fisk, Eugene Lyman

If you are 40 or over. Ladies' H J 35:90 Mr '18

Fiske, Bradley Allen

Admiral Fiske on our use of aircraft against the German navy. por R of Rs 57:315-16 Mr '18

Fiske, John (Edmund Fiske Green)

John Fiske's long struggle for recognition. il Cur Opinion 64:198-9 Mr '18

Flaherty, James A.

Who are the Knights of Columbus? Ladies' H J 35:66 Mr '18

Flamel, Nicholas

Ancient defensive armor in modern warfare. Sci Am S 85:180-2 Mr 23 '18

Flashlight photography. See Photography, Flashlight

Fleming, R.

Fourth dimension. Sci Am S 85:188-9 Mr 23 '18

Fletcher, John Gould

Earth; poem. Bookm 47:92 Mr '18

New heaven; poem. Yale R n s 7:527-8 Ap '18

Poetry of Conrad Aiken. Dial 64:291-2 Mr 28 '18

Flexner, Simon

Franklin P. Mall: an appreciation. Science n s 47:249-54 Mr 15 '18

Fliers. See Aviators

Flies

Effective methods of fly control. T: J. Headlee. Sci Am S 85:150-1 Mr 9 '18

Flies as carriers of contagion

Insects and the national health. C: T. Brues. il Sci Monthly 6:202-6 Mr '18

Flint implements and weapons. See Stone implements and weapons

Flood control

Flood protection for the Miami valley. O. R. Geyer. il map R of Rs 57:291-6 Mr '18

Florida

Florida surveyed for war and peace. Survey 39:598 Mr 2 '18

Flour

Shall we eat whole-wheat bread? R. A. Dutcher. Science n s 47:228-32 Mr 8 '18

What I do with the mixed flours. A. B. Scott. il Ladies' H J 35:33 Ap '18

Flour mills

Old-fashioned flour mill. H. Snyder. il Bellman 24:207-9 F 23 '18

Flowering bush, story. M. E. W. Freeman. il Woman's H C 45:18-19 Ap '18

Flowers

Color in the garden. L. B. Wilder. il Country Life 33:26-40 Mr '18

What's new in vegetable and flower seeds? il Gard M 27:74-5 Mr '18

Flying thoughts. C: B. Nordhoff. Atlan 121:554-62 Ap '18

Focusing. See Photography—Focusing

Food

Economic war foods and war-food production. S. Morgan. Fortn 109:270-7 F '18

Food and common sense. E. Lyttelton. Fortn 109:398-407 Mr '18

FOOD—CONTINUED TO FRENCH; NEXT PAGE

Specimen Entry from Readers' Guide to Periodical Literature

Food—Continued

- Food crusade. T: H. Dickinson. Bookm 47: 196-8 Ap '18
 War-time pleasures of the table. H: T. Finck. Cent 95:899-904 Ap '18
- Food, Cost of**
 Averting famine. A. C. Laut. New Repub 14: 254-7 Mr 30 '18
 How food-prices have advanced here and in other countries. Lit Digest 56:126-8 Mr 16 '18
- Food administration.** See United States—Food administration
- Food conservation**
 Are we really saving? L. Oppen. il Good H 66: 62 F '18
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- Apple-blossom town. H. Conkling. Cur Opinion 73:657 N '22
- Apple trees. D: Cecil. Liv Age 313:58 Ap 1 '22
- Apprentice. R. J. Roe. Poetry 21:87 N '22
- Approaching spring. J. Upper. Poet Lore 33:151 Mr '22
- April and I. V. Watson. Harper 144:646 Ap '22
- April in the woodland. J: A. Adams. Munsey 75:518 Ap '22
- April mortality. L. Adams. New Repub 28:378 N 23 '21
- April rains. G: D. Bond. Cur Opinion 73:528 O '22
- April snow. P. Andelson. Poetry 19:134 D '21
- April Sundays. A. Hare. Atlan 129:520 Ap '22
- Aquatint framed in gold. A. Lowell. Nation 114:687 Je 7 '22; Same. Lit Digest 73:33 Je 24 '22
- Are you afraid? G. H. Conkling. Yale R n s 11:378-9 Ja '22
- Armistice. C: B. Going. Lit Digest 71:36 N 26 '21
- Armistice day, 1918-1921. E. B. Jordan. Lit Digest 71:35 N 12 '21
- Around the bend. E. B. Holway. Forum 68:605 J1 '22
- Arpeggio. W. Waldron. Poetry 19:138 D '21
- Arrogant poet to his lady. O. C. Moore. Munsey 76:296 J1 '22
- Ars Egyptica. E. W. Underwood. il Int Studio 76:108-10 N '22
- Artisan. V. W. Mackall. Nation 114:318 Mr 15 '22
- Artist whim. C: W. Stork. Bookm 56:100 S '22
- Artistic nature. J: H. D. Blanke. Art and Archaeol 12:204 N '21
- Artist's signature. E. M. Thomas. Lit Digest 71:31 D 24 '21
- As rivers of water in a dry place. A. De Bary. Liv Age 312:734 Mr 25 '22
- As she passes. H. Hall. Outlook 132:55 S 13 '22
- As to art. T. Robinson. Cur Opinion 72:110 Ja '22
- Ascension. R: Church. Liv Age 315:56 O 7 '22
- Ask not one another. C. Cranston. Atlan 130:515 O '22
- Asked of my age. Mrs S. Van Rensselaer. Harper 144:174 Ja '22
- At dusk. E. Hamilton-Fellows. Liv Age 311:554 N 26 '21
- At dusk. F. L. Montgomery. Munsey 75:333 Mr '22
- At eventide. E. Hickey. Cath World 116:222 N '22
- At O'Neill's Point, Grand canyon of Arizona. Poetry 20:189-90 J1 '22
- At star-rise. A. N. Choyce. Liv Age 314:304 J1 29 '22
- At sunrise. F. A. Faunce. Cath World 115:397 Je '22
- At sunset. A. Arnold. Good H 74:32 Mr '22
- At the grave of Pauline Johnson. G. S. Smith. il Canad M 58:98 D '21
- At the hospital for the insane. L. Speyer. Poetry 20:309 S '22
- At the play. R. F. Eliot. Munsey 75:657 My '22
- At times a vision—. H. Kemp. Munsey 74:422 D '21
- At Versailles. E. Coatsworth. Poetry 20:130 Je '22
- At Versailles. A. B. Leigh. Poet Lore 33:156 Mr '22
- Atavism. C. Y. Rice. Cur Opinion 72:536 Ap '22
- Atlas. J. B. Sloan. Cent 103:956 Ap '22
- Atonement. A. Kilmer. Lit Digest 71:32 D 17 '21
- Attack; tr. from the French. A. Lamandé. Poet Lore 33:474 S '22
- Attar of roses. N: Breton. Munsey 75:268 Mr '22
- Attention! O. T. Dargan. Atlan 129:217 F '22
- Aubade. R. Carnevali. Poetry 19:140-1 D '21
- Aubade; tr. from the French. V: Hugo. Lit Digest 72:48 F 11 '22
- August night. E. M. Roberts. Poetry 20:260 Ag '22
- Auld Reekie, parting. C: M. Purdy. Forum 66:521 D '21
- Autumn. A. L. Bolton. Overland n s 80:14 N '22
- Autumn. F. Rios. Poetry 21:79 N '22
- Autumn. E. M. Roberts. Poetry 20:258-9 Ag '22
- Autumn chant. E. St V. Millay. Yale R n s 12:56-7 O '22; Same. Lit Digest 75:42 O 14 '22
- Autumn colors. H. Kemp. Munsey 77:192 O '22
- Autumn idyl. D. H. Verder. Educa 42:144 N '21
- Autumn rain. P. Andelson. Poetry 19:133 D '21
- Autumn road. M. E. Sangster. Sat Eve Post 195:162 N 11 '22

Cumulation of Books

The illustration below is inserted to show that *books* are listed under author, title and subject on a cumulative plan. Notice that the last volume, which is a very small one, is called *Cumulative Book Index*. Under this title new books are listed each month; the lists are frequently cumulated.

The price and publisher of each book is indicated. A list of publishers is given at the back.

What is the title of the large volumes?

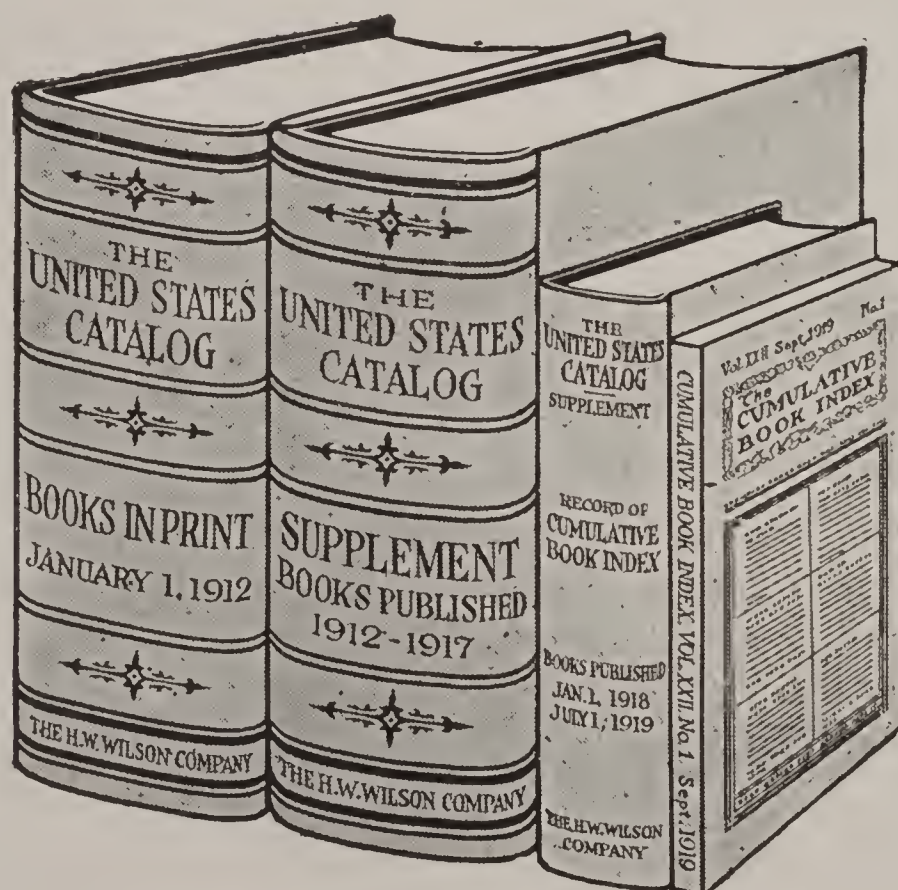
The authors, subjects, and titles of books published between what years appear in the second large volume?

What years are covered by the next volume?

Books which were in print at what date are listed in the first volume?

Probably only librarians are interested in the fact that these catalogues give the number under which the Library of Congress files the catalogue card for each book. Such cards are needed for a card catalogue, and they should be ordered by number.

Illustration of Cumulation by Years of Books



Questions for Periodical Literature

NOTE:—Numbers in margin at right of questions below, give values on scale of 100%.

- 1— a. With what year does the Readers' Guide to Periodical Literature begin?
b. What index covers magazine literature for the 19th century?.....2 each=10

2—What word is used to indicate that monthly and yearly issues of the Wilson indexes are gathered together in one alphabet at certain intervals?.....=5

3—Read the following entry which is taken from the Readers' Guide:

Muir, John in his laboratory—Alaska.

S. H. Young. il por World Outl 4: 6-7 My '18

- a. Whose work in Alaska does the article describe? Who wrote the article?
b. How is the *title of the magazine* abbreviated in its second word?
c. Where, in the Readers' Guide, could the full name of the magazine be found?
d. In what volume of the "World Outlook" does the article appear?
e. The article begins on what page? Ends on what page? What does "il" mean?
f. What abbreviation indicates that a portrait of John Muir appears?
g. In what month of what year was the article published? Is the day of the month indicated?
h. When the day of a month is given in a reference, does the magazine publish one or more than one issue per month?
i. Under what two *proper* names would the article be indexed as *subjects*?
j. Under what word would the author of the article be indexed?.... 4 each=40

4—When large subjects are subdivided in the Guide under both topics and countries, which are entered first?=3

5—Which of the Wilson publications indexes:

- a. Magazines devoted especially to business and industrial interests?
b. Magazines relating to agricultural subjects?
c. Under what title does this firm condense reviews of current books?...6 each=18

6—Selections from what important publications, not magazines, are made by the Wilson Company for most of their indexes to current periodical literature?.....=7

7—Could magazine articles be found through Poole's Index for each of the following subjects?

- a. Sub-marine boats b. Christmas c. Shakespear d. Lincoln e. Moving
pictures 2 each=10

8—Could references on each of the subjects indicated in question 7 be found in the Readers' Guide?=5

9—Is *Poole's Index* of service for general reference work on current events?.....=2

**Plan for Checking Work
When Training in the use of Reference Material
is organized as a
Required Feature of the Regular English Course**

Schools which use these pamphlets as a required feature of their English courses will find it convenient to have a plan for marking the lesson. For this purpose a number appears after each question to indicate its value on the scale of 100%. Because this work requires but a few days each term, students are in danger of considering it unimportant unless it is carefully guarded. A reference question in examinations emphasizes the work. If a certificate for passing in an English course is not granted unless the work in the library pamphlet for that course has been completed, the fact will be established in the student's mind that the school considers training in the use of reference books to be as necessary as is training in other educational lines.

Reference Guides That Should be Known and How to Use Them

50.77

By
Florence M. Hopkins
Librarian
Central High School, Detroit, Michigan



*This Pamphlet Pertains to
Commercial Guides*

THIRD EDITION

50.77

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The pamphlet on *Webster's New International Dictionary* may be purchased at the rate of 10 cents per copy; in lots of fifty, for 8 cents each plus carriage, from the Publishers of the Dictionary.

G. & C. MERRIAM COMPANY,
SPRINGFIELD, MASS.

Other pamphlets, as listed in the *Foreword*, on the opposite page, may be purchased at the rate of 25 cents per copy; in lots of fifty, for 17½ cents each plus carriage, from

THE WILLARD COMPANY,
601 West Fort Street,
DETROIT, MICH.

NOTE: Arrangements have been made between The G. & C. Merriam Co. and the Willard Co. by means of which the lesson on Webster's New International dictionary can be sold much more cheaply than can the lessons on miscellaneous reference books. It is hoped that this plan will make it possible for schools to adopt at once the dictionary pamphlet, as a required text book for the first term of high school English work, and the other pamphlets later.

Foreword

This pamphlet is one of a series on the use of reference books. The complete series constitutes a third edition of *Reference Guides That Should be Known and How to Use Them*, which appeared first in 1916 in bound form as a text book for high and normal schools.

The third edition has revised and condensed the eleven pamphlets of the second edition into eight pamphlets, one for each of the eight high school courses in English, as listed below. The revised text can also be adapted to meet the needs of college freshmen who have had no special training in the use of reference tools. No important change has been made in the subject matter. Each pamphlet contains sixteen pages; even though the subject may be new, it should be mastered in a little more than an hour's time.

List of Pamphlets in the Series

Graded to correspond with High School English Courses

- English 1—Webster's New International Dictionary.*
- English 2—Parts of a book: Concordances.*
- English 3—Encyclopaedias.*
- English 4—Library classification and card catalogue.*
- English 5—Year-books.*
- English 6—Indexes to periodical literature.*
- English 7—Commercial guides.*
- English 8—Government publications: city, state, and federal.*

It might be well to give the entire series to high school seniors, if the work has not been organized grade by grade. College freshmen could do the work independently; so also could anyone needing reference tools, club workers, for example. A survey was recently made by the faculty of one of our state universities, concerning causes of failure in the freshman college year: four statements were formulated, one of which reads as follows: "Students should be trained to use ordinary means of securing information, such as: *the table of contents, the index, the dictionary, the encyclopaedia, the card catalog, the Readers' Guide to Periodical Literature, the newspaper, the informational magazine.*" It is therefore evident that a need exists for some plan of teaching the use of reference material which can be fitted into the crowded high school and college courses without undue intrusion or expense.

These simple lessons have been prepared in the hope that they will aid students to become familiar with standard reference material. The inclusion of specimen pages from the reference books studied makes it possible for each student to follow all illustrative examples without making a trip to a library and waiting to have access to the complete reference work. No library will furnish a sufficient number of copies of expensive reference books for this purpose; neither can a library afford to have pages in expensive reference books as badly worn and marked as this work would cause them to become.

Much dependence is placed upon the co-operation of the English departments when the work is given in high schools, each teacher of English being expected to devote about three recitation periods to the pamphlets which are graded to correspond with the respective English courses taught. In college, it would seem to be a very simple matter for the rhetoric department to plan to have their freshmen read these pamphlets early in the term, either as assigned class work, or independently, time being allowed, so that the work could be done without overpressure. Satisfactory results might be assured if students understood that at the first rhetoric examination a few leading questions selected from those on the inside of the back covers of the pamphlets would be asked.

According to the library code for capitalization all words in a title begin with a lower case letter instead of with a capital, except the first word, proper nouns, and adjectives derived from proper nouns. Certain specimen pages will show that some publishers follow this code.

*The following paragraphs are taken from the
Foreword of the First Edition*

Possibly the best way of presenting the points which it is hoped this series of lessons may emphasize is to quote directly from the preface of a Bulletin on "Library instruction in universities, colleges and normal schools," from the United States Bureau of Education, 1914—No. 34.

Many educators of note, as well as college and university librarians, have emphasized the urgent necessity of instruction and training in "book-using skill."

The place of the library in the work of all departments is one of increasing importance. The library is a resource or reservoir from which the student should draw constantly for information and inspiration.
Every month of delay in instructing him in the meaning and use of the library lessens the efficiency of his course.

Every new student should be required to take some course in which is given definite practical instruction in the handling of library tools. Such a course, moreover, should not only be required, but it should constitute a definite part of the work required for a degree.

Commercial Guides

One usually thinks of reference work as being confined to a search for information on some scholarly subject; it is, however, sometimes quite as necessary to find the publisher of a newspaper, or the manufacturer of a typewriter, as it is to find the date of the birth of Shakespeare.

The number of reference books for business purposes is larger than the academic student is apt to realize. Many commercial guides relate to purely technical fields, and are used only by those whose interests require them. Those to be studied in the following pages are of a general nature, and give a comprehensive idea of the kind of information which can be found in commercial lines.

Laws of Business

Though only a lawyer knows the details of legal transactions, every one should know something about the forms and the requirements relating to ordinary business relationships, such as the drawing up of contracts, the formation of partnerships, the giving or taking of a mortgage, and other general legal information. A reliable book which has been prepared by a Harvard University professor of commercial law for just such needs, is:

Parsons: Laws of Business. Doran, New York

City and State Directories

City Directories

A telephone directory or a city directory is simply a business reference book.

Many people do not realize the amount of information contained in a city directory, which is usually classified under four main sections, as follows:

1. *Miscellaneous information*, giving such points as: location of schools, hospitals, city offices, churches. This section is usually placed at the front of the directory and is preceded by an index.

2. *Residents of the city*, giving surnames in alphabetical order. This constitutes the main part of the directory.

3. *Street and avenue guide*, giving streets in alphabetical order, sub-arranged by house numbers; streets intersecting between numbers are indicated.

4. *Business directory*, giving the name of a business or a profession, in alphabetical order, as: grocers, druggists, lawyers, dentists.

Miscellaneous Information in a City Directory

A specimen entry from the directory of the city of Washington, D. C., is given in the first and second columns on the opposite page. This directory does not require a special page for *Index to miscellaneous information* as the *Table of contents* answers the purpose. Consult the entry under the *Table of contents* and tell on which pages in the directory one could find where the following are located in Washington:

Churches; Health Department; Art Galleries

Street and Avenue Guide in City Directory

Following the names of residents in a city directory, the names of the streets and avenues are given in alphabetical order. Under them, the house numbers are given in numerical order, and cross streets are indicated where they intersect.

Consult the specimen entry from the *Street and avenue guide* and notice that the section of Pennsylvania avenue referred to is “*n w*”, meaning north west. Answer the following questions:

Which street intersects Pennsylvania Avenue just above 1200?

What business is located at 1107?

Which street intersects just below 1300?

What building is located at the corner of Thirteen and One-half street and Pennsylvania Ave? What office is in room 2? What office is in room 3?

State Gazetteers

For many states a gazetteer is published which gives information for the towns in the state corresponding to that given for cities in city directories. In some, but not in all of these state gazetteers, miscellaneous information regarding the state as a whole is given at the front, such as: state boards, state institutions, state officials. The main part of a state gazetteer is taken up with an alphabetical list of the towns in the state, giving a brief description of each, the population, and an alphabetical list of important residents. At the back of the gazetteer, a business directory is given, arranged alphabetically under the name of the business or profession, and sub-arranged alphabetically by towns.

The *upper* section of column three, on the opposite page, is taken from an *Indiana State Gazetteer*. A description of *Bloomington*, a town of 12,000 inhabitants, is given, followed by a few surnames under “A”. Read the description of the town and then answer questions 1 and 2.

- 1: *Bloomington* has how many banks?
- 2: How many newspapers are published there?
- 3: In what business is Mrs. A. G. Allen engaged?
- 4: In what business is O. L. Barton engaged?

The *lower* part of the column, illustrates the business section of this gazetteer under *Grocers, retail*. Notice that the names of the towns at the right are in alphabetical order. Under Bloomington find O. L. Barton. Are the names of the other grocers in Bloomington in alphabetical order? Name a grocer in Blanford.

Specimen Entries from a
City Directory of Washington, D. C.

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Street and Avenue
Guide

Pennsylvania Avenue
1101 Retail Merchants Assn
“ Duplicator Co The
“ Fracker Willard, mfrs
agt
1107 Galt & Bro, jewelers
1109-11 Grosner Clarence W,
men's furngs
1113 Mandes Louis, restr
n e cor Raleigh Hotel ,
“ Myers Melvin E, barber
“ Royal Blue Line Sight-
Seeing Co
Twelfth intersects
1200 Vacant
1201 Davis Jas-Y & Sons, hats
“ Dick Edw H, hotel agt
“ Evans, Wilbur E, dentist
1202 Washington-Virginia Ry
Station ,
“ Clift Amos F, cigars
“ Washington-Virginia Ry
Co
1203 Vacant
1204 Lepreux Augustus jr, real
state
“ National Assn Stationary
Engineers
1205 Edmonston C R, glasswr
1206 Mt Vernon Cafe Co
1208 Hotel West
“ Wilson Lila W
1209 Internal Revenue Dept
1210 Stone & Poole, druggists
1211 Haas I & Co, tailors
1212 Hodges Richd B, cigars
1213 Vacant
1214 Bromwell J E Sons, plat-
ers
1215 Vacant
1216 Dade Moses H, restr
1217 Natl Token Shop
1218 Oujeval Albert, tchr lan-
guages
1219 Klein B W, shoe repr
1220-22 Vacant
1221 Vacant
1223 Portner Jos, mens furngs
1224 Standiford Harry, cigars
1225 Richards Fountain Pen
and Gift Shop
1226 Turner Wm H, barber
“ Willers Wm
1227 Washington Lunch
1228 Mann Wm E, shooting
gallery
1229 Natl Remembrance Shop
1230 De Atley Wm, pool
“ Dove M W, cabtmkr
1231 Model Clothes Shop
1232 Sou Auto Supply Co (br)
1233 Vacant
1234 Cunningham Plumbing
Supply Co
1235 United Cigar Stores Co
1236 Heidenheimer Elias,
pawnbroker
“ Heid Benj, diamond ex-
pert
“ Hoff Alvin, lawyer
“ Hartstall Leon Mrs
1237 Ogram Thos, E, druggist
1238 Auto Car Sales & Serv-
ice Co (inc)
Thirteenth intersects
1300-20 Southern Ry Co offices
Thirteen and One half
intersects
s s Municipal Building
Rooms:
2 Dept of Playgrounds &
Office of Boy Scouts
of America
3 Fire Dept Headquarters
“ Fire Marshal

Specimen Entries from an
Indiana State Gazetteer

Main Entries; Under Towns

BLOOMINGTON

A city of 12,00 population, located in Bloomington and Perry townships. Monroe county, on C. I. & L. and I. C. R. R.'s, and is the county seat. There are 4 banks, 2 newspapers, the "Telephone" and "World-Courier." The Indiana State University is located here and there are graded and high public schools. There are 13 churches representing the leading religious denominations. The leading industries are oolitic limestone, gloves, creosoted ties, furniture, etc. The city has water works and electric light system and a good sewage system, also 6 miles of paved streets. The chamber of commerce is an organization which is active in advancing the interests of the city, its progress and its industries. Exp., Am. Tel., W. U. Oscar Cravens, postmaster. Adams T, meats Akin Raymond A, physician Akin Wm, mens furngs Allen A G Mrs, genl ins Ault Bros (Dory L and Samuel N), garage Axiom & Hendrix, 2d-hd goods AXTELL HARRY A, Attorney-at-Law, Real Estate, Insurance, Investments, Loans, Etc, East Side Public Square Baldwin Piano Co, Ed Williams agt Barrow H R, undertaker Barton O L, grocer Batman Fred H, phnsician

Business Entries

Grocers—Retail

Wells Walter	“
Whittaker Ottawa	“
Clem Cyrus	Blanford
Lanzoni Martin	“
Lundwell G F	“
Calvert E O	Bloomfield
Chaney Charles	“
Edington & Knapp	“
Flater J B	“
Inman J T	“
McLaughlin A W	“
Stalcup Glenn	“
Goham & Davis	Bloomington
Barton O L	Bloomington
Bender F M	“
Blakely Horace	“
Blakely W O & Sons	“
Bowles H H	“
Brown L J	“
Buffalo Allen	“
Clark George	“
Clark W S	“
Collins & Seidle	“
Cooper J H	“
Gillispie G P (R D)	“
Henin W L	“
Johnston Wm	“
Kelley E A	“
Kirby & Norman	“
McAninch W A	“
Miller W A	“
Moore Howard (R D)	“
Myers F S	“
Norris I A	“
Ranard R L	“
Rhodes Mason	“

Information regarding the leading firms in the United States arranged under two headings:

Alphabetically under the name of the business or of the article manufactured.

Alphabetically under the name of the firm.

1: Information arranged:

Alphabetically under the Business or Article Manufactured.

On the opposite page, a specimen entry is given from:

Thomas: Register of American Manufacturers.

The *Thomas Register* is a very large book of nearly 4000 pages. An extensive index includes the name of each article manufactured, and guides to the page which gives the firm's name. Supplementary pages give an alphabetical list of leading firms.

Consult the opposite page, at the top of the second column, and name a firm manufacturing *boot and shoe needles* in South Framingham, Mass. What is the letter at the outer margin opposite the name? The capital letters following firm names indicate an estimation of the amount of money invested. About how much money is represented by the letter for this firm, according to the following classification which is given on the inside of the front cover of the register?

AAAA	over \$1,000,000	B	over \$50,000	F	over \$2,500
AAA	" 500,000	C	" 25,000	G	" 1,000
AA	" 300,000	D	" 10,000	H	" 500
A	" 100,000	E	" 5,000	X	no estimate

A rating of "H," in this Register, does not mean an unreliable firm, but simply a firm with a small capital.

Read the list of *needles* printed in heavy type.

Give the exact address of a firm manufacturing *hand sewing needles*.

Which firm, manufacturing *crochet needles*, has the largest capital invested?

Under *neckwear*, notice that the states in which neckwear is manufactured are sub-arranged alphabetically. Is the capital estimated for the Artistic Neckwear Co., New York City? (Note what "X" signifies in the above classification.)

A book similar in plan to the *Thomas Register* is:

Hendricks: Commercial Register of the United States.

A Specimen Entry from the Body of Thomas: Register of American Manufacturers

PA.: SCRANTON:
Electric City Silk Co. (Silk).....A
R. I.: PROVIDENCE:
Anderson & Brant Co., 129 Summer (Ladies')..F
Hope Webbing Co., Inc. (Tubular Wash Ties).....AAAA
TENN.: CHATTANOOGA:
Mason & Wingers.....E
WASH.: SEATTLE:
Washington Neckwear Mfg. Co., Mutual Life Bldg. X
WIS.: MILWAUKEE:
Friedman, L., 326 B'way.....C
Scheftels & Simson Co., B. S., 353 E. Water..D

NECKWEAR: KNIT.

MASS.: SHELburne FALLS:
Orange Knitting Co.....A
N. Y.: ALBANY:
Stoneman, Geo. T. (Silk) D
N. Y.: BROOKLYN:
Bernstein & Nichthausen (Knitted Neckties), 381 Myrtle Ave. D
Mayhew, Francis H., 397 Bridge.....D
N. Y.: NEW YORK CITY:
Alden Mills, 346 Bway.....F
Artistic Neckwear Co., 79 E. 130th.....X
Church, Webb & Close, 20 W. 37th.....F
Colonial Mfg. Co. (Ladies' Knit), 200 5th Ave.X
Dorfman Bros., 55 W 3d.....D
Franklin Knitting Mills, 511 E. 72d.....D
Glickman-Miller Co., 65 W. Houston.....F
Keys & Lockwood (Ties), 33 E. 17th.....C
Leinkram Knitting Mills, Harry N. (Men's Ties), 88 Walker.....E
Samuels & Co., F. H. (Ties), 141 W. 36th.....X
Trabulski, N. & J., & Co., 475 B'way.....E
Weber & Co., M., 79 Fifth Ave.....E
N. Y.: WOODHAVEN:
Nusbaum & Co., D. (Knitted Ties).....A
OHIO: CLEVELAND:
Weisenberg-Guggenheim Co. (Knit), 224 High Ave. E
PA.: HANOVER:
O'Neill Silk Co. (Tubular Silk).....X
PA.: PHILADELPHIA:
Belmont Mfg. Co., 1302 W. Columbia Ave. ...E
Carney & McLaughlin, 1021 Callowhill X
Clark Mfg. Co. (Ties), Pastorius and Osceola, G't'n D
Colonial Knitting Mills Co. (Silk Neckties), 1011 Chestnut E
Edwards & Troth Co., 27 N. 10th F
Federal Knitting Co. (Silk Neckties), 1015 Diamond D
Glen Knitting Co. (Ties), 2d and Westmoreland B
Globe Knitting Mills, 27 S. 7th St.....E
Largman Bros. (Silk), 10th & Berks C
Largman, Oppenheim & Co. (Neckties), 428 N. 13th A
Laurel Knitting Co. (Silk), 73 Laurel.....C
McCutcheon & Bro., T. P. (Silk), 1027 Arch...B
Minoru Hosiery Mills (Neckties), 420 N. Marshall B
Pioneer Knitting Mills, 40 N. 3d.....E
Quaker Knitting Co., 115 N. Carnac.....F
Sheplan & Sabul, 15th & Wallace.....E
Stein & Sondheimer, 112 N. 12th.....C
Tillyer, Albert, & Co., 1221 Arch (Ladies')...E
United States Trimming Co. (Crocheted Neckties), 1410 6th E
WIS.: MILWAUKEE:
Phoenix Knitting Works (Cotton, Wool, Worsted and Silk), 216 B'way.....AA

NECKYOKES (see Yokes: Neck).

NEEDLES: MISCELLANEOUS.

MASS.: SOMERVILLE:
Paty Needle Co. E
MASS.: WEST MEDWAY:
United Awl & Needle Co.....C
N. J.: NEW BRUNSWICK:
New Brunswick Needle Co.....X
N. Y.: NEW YORK CITY:
BOKER, H., & CO., INC., Bway & Duane AAAA
Dieckerhoff, Raffloer & Co., 564 B'way..AAAA
Filld & Co., A. (Imp.), 93 Chambers.....A
Greene, Frank P., 39 Broad.....D
Irving Mfg. Tool Co., 157 Chambers.....X
Lederer, F. E., 71 Greene (International Needle Co.) E

NEEDLES: BOOT & SHOE.

MASS.: HAVERHILL:—Keith, Irving L....F
MASS.: SOUTH FRAMINGHAM:
Long Machinery Co., R. H.....A

NEEDLES: BROOM MAKERS.

CONN.: WATERVILLE:
Berbecker & Rowland Mfg. Co. A
MASS.: NORTH HADLEY:
Dickinson & Son, C.....D

NEEDLES: CARPET.

CONN.: WATERVILLE:
Berbecker & Rowland Mfg. Co.....A

NEEDLES: COMBER.

MASS.: BOSTON:
Leigh & Butler, 232 Summer (Imptrs.).....C
MASS.: LOWELL:
Bagshaw, W. H., Co. A
N. J.: NEWARK:
Crabb & Co., Wm., 3d, cor. 4th A
PA.: PHILADELPHIA:
Hood Co., R. H., 1842 G't'n Ave.....C
R. I.: PROVIDENCE:
Bragg, John I., 24 Atwood.....G
Townsend, Thos., 157 Orange.....E
R. I.: WOONSOCKET:
Woonsocket Comb Co.....D

NEEDLES: CROCHET.

CONN.: CHESTER:
BATES, C. J., & SON.....B
CONN.: DEEP RIVER:
Potter & Snell C
CONN.: ESSEX:
Tiley Pratt Co. C
N. Y.: NEW YORK CITY:
American Hard Rubber Co., 11 Mercer (Hard Rubber) AAAA
Brabant Needle Co., 47 Great Jones St....D

NEEDLES: DARNING.

CONN.: WATERVILLE:
Berbecker & Rowland Mfg. Co. A

NEEDLES: DENTISTS HYPODERMIC.

N. Y.: NEW YORK CITY:
Consolidated Dental Mfg. Co., 134 Washington Pl. B
OHIO: CLEVELAND:
United States Dental Mfg. Co., 6505 Conrad Ave. D

NEEDLES: DIPPING.

WIS.: MILWAUKEE:
White, David, Co., 421 E. Water.....D

NEEDLES: ENGRAVING.

N. Y.: NEW YORK CITY:
SENEFELDER LITHO. STONE CO., 187 Washington B

NEEDLES: FLOUR BAG.

CAL.: OAKLAND:
Barr Bros. Co., Inc. E

NEEDLES: HAND SEWING.

ILL.: CHICAGO:
Boye Needle Co., 4343 Ravenswood Ave.....B

NEEDLES: HARNESS.

CONN.: WATERVILLE:
Berbecker & Rowland Mfg. Co.....A

NEEDLES: HOSIERY (see also Needles, Knitting Machine).

PA.: MONT CLARE:
Mont Clare Needle Co.....D

NEEDLES: HYPODERMIC (see also Needles, Dentists; also Syringes).

MASS.: BOSTON:
Randall-Faichney Co., 76 Atherton X
Wilson & Wilson X

A book in two large volumes which gives the manufacturing firms of the *world*, under the article manufactured is:

Kelly: Merchants, Shippers and Manufacturers of the World.

Information in this book is arranged, except for Britain and her possessions:

- 1st. Under continents.
- 2nd. Under countries.
- 3rd. Under cities.
- 4th. Under business.
- 5th. Under firm names.

At the front, a vocabulary of trade names in foreign languages refers to the English names.

On the opposite page an entry from an index of this book is given. Of course the index for different years varies as business varies. Consult the entry and answer the following questions:

On which page in the directory can the names of firms handling *pencils* in the following cities be found: Calcutta; Milan; Warsaw; Philadelphia?

How many *pearl button* manufacturers are listed?

In how many cities is *peppermint oil* manufactured?

Under *paving tile*, how many cities are listed?

Which is the larger industry, *perfumery manufacturing*, or the manufacturing of baby carriages (*perambulators*)?

How can one tell that the list of cities manufacturing *perfumery* is not completed on this page?

2: Information arranged:

Alphabetically Under the Name of the Firm.

Three leading publications are issued yearly which give business statistics under the names of the firms:

Moody's Investment Rating Book Service (Explained on pages 10-11.)
4 large volumes; Industrials; Public Utilities; Government Bonds; Railroads.

Poor's Publishing Company—3 large volumes.

Industrials

Public Utilities

Railroads

Manual of Statistics—1 volume. This book condenses, into one volume, quite similar information for a fewer number of firms.

A Specimen Entry from the Index of Kelly: Merchants, Shippers and Manufacturers of the World

Westport - - - 271	Kursk - - - 1131	Szeged - - - 423	Perfumery Manufctrs.—
Wheeling - - - 1822	Menomonie - - - 1658	Pepper Plantations:—	See also Eau de Cologne:
Windsor - - - 272	Mohileff-o.-Dniepr - 1133	Coimbatore - - - 23	London - - - 2259
Winnipeg - - - 287	Mohileff-o.-Dniestr - 1133	Dumbara - - - 51	Provinces - - - 2938
Winona - - - 1825	Morschansk - - - 1133	Galle - - - 52	Isle of Man - - - 3078
Winston-Salem - 1826	Pensa - - - 1147	Hantane - - - 59	Almeria - - - 1202
Yarmouth - - - 282	Poltawa - - - 1153	Mysore - - - 36	Altona-Ottensen - 640
Yonkers - - - 1828	Szombathely - - - 424	Perak - - - 335	Altstetten - - - 1336
Ypsilanti - - - 1829	Wormerveer - - - 946	Sabang - - - 952	Amsterdam - - - 925
Patent Solicitors:—	Woronesch - - - 1167	Sebattik - - - 303	Andernach-on-Rhine 641
Hamilton - - - 236	Zaandam - - - 947	Wattegama - - - 55	Argenteuil - - - 495
Montreal - - - 247	Pearl Button Manufrs.:—	Wynaad - - - 44	Baltimore - - - 1529
Toronto - - - 268	La Crosse - - - 1642	Peppermint Manufrs.:—	Barcelona - - - 1207
Vancouver - - - 291	Moline - - - 1664	Lyons - - - 539	Basle - - - 1338
Winnipeg - - - 287	Muscantine - - - 1663	Paris - - - 582	Berlin - - - 663
Pâtés de Chartres:—	Peekskill - - - 1743	St. Etienne - - - 600	Bankenburg-Harz - 670
Chartres - - - 512	Pearl Goods Manufrs.:—	Saint Ouen - - - 589	Bodenbach - - - 341
Pâtés de Foies Gras:—	Neunkirchen - am -	Peppermint (Oil of) Mfrs.:—	Bonn-on-Rhine - - - 671
Paris - - - 582	Steinfelde - - - 364	Kalamazoo - - - 1637	Bordeaux - - - 503
Schiltigheim - 899	New York - - - 1721	Mishawaka - - - 1663	Boston - - - 1545
Strasbourg - - - 930	Providence - - - 1766	Newark (N. Y.) - 1672	Braga - - - 1081
Toulouse - - - 607	Pearl Handle & Scale Cut-	Yokohama - - - 1421	Bremen - - - 676
Pattern Card Makers:—	ters—See Cutlery	Perambulator Manufrs.—	Breslau - - - 679
Aachen—Aix - la	Pearlery:—	See also Baby Carriage	Brunswick - - - 684
Chapelle - - - 637	Broome - - - 179	Manufrs.; also Child-	Buenos Aires - - - 2014
Berlin - - - 663	Onslow - - - 183	ren's Cart & Carriage	Cadiz - - - 1211
Pattern Makers:—	Thursday Island - 171	Manufacturers:—	Cairo - - - 317
Chicago - - - 1577	Pebble Flints Mers.:—	London - - - 2259	Cannes - - - 509
Detroit - - - 1606	Arnstadt - - - 642	Provinces - - - 2938	Cartagena - - - 2022c
Hanover (Pa.) - 1625	Copenhagen - 474	Ansbach - - - 641	Cassel - - - 685
Milwaukee - - - 1662	Dieppe - - - 516	Auckland - - - 194	Chicago - - - 1578
New Glasgow - 280	Jemappes - - - 449	Bozkov - - - 367	Cleveland - - - 1588
Rochester (N. Y.) 1773	Le Treport - - - 530	Brattleboro' - 1548	Cologne - - - 693
Pattern Makers' Supplies:	Villentrois - - - 612	Christchurch - - - 198	Copenhagen - - - 476
Dresden - - - 708	Peels (Lemon, Orange &	Deynze - - - 443	Dessau - - - 702
Pavement Light Mfrs.:—	Citron) in Brine:—	Eilenburg - - - 717	Detroit - - - 1606
London - - - 2258	Bastia - - - 613	Finsterwalde - - 724	Dresden - - - 709
Brussels - - - 441	Messina - - - 1027	Hamm - - - 780	Düsseldorf - - - 714
Paris - - - 582	Palermo - - - 1029	Hobart - - - 175	Finsterwalde - - 724
Philadelphia - 1752	Syracusa - - - 1029	Kral Vinohrady - 405	Florence - - - 976
Sydney - - - 120	Pen & Penholder Manu-	Lenzburg - - - 1349	Frankfort - on - the -
Paving Companies:—	facturers — See Steel	Lichtenfels - - - 813	Main - - - 730
Guelph - - - 235	Pen & Penholder Mfrs.	Liegnitz - - - 813	Furruckabad - - - 25
Kansas City - - - 1639	Pencil Importers:—	Malmö - - - 1266	Gefle - - - 1252
Melbourne - - - 146	Osaka - - - 1410	Melbourne - - - 146	Geneva - - - 1347
New York - - - 1721	Pencil Manufacturers:—	Milwaukee - - - 1661	Genoa - - - 981
Newark (N. J.) - 1671	London - - - 2259	Murgenthal - - - 1351	Gera - - - 736
Oklahoma City - 1738	Provinces - - - 2938	Nymegen - - - 935	Ghazipur - - - 25
Simcoe - - - 260	Altheide - - - 867	Oederau - - - 847	Golfe Juan-Val-Lauris 522
Topeka - - - 1814	Broach - - - 13	Paris - - - 582	Gothenburg - - - 1257
Paving Tile Manufctrs.—	Budweis - - - 345	Perth - - - 185	Grasse - - - 522
See also Tile Manu-	Calcutta - - - 19	Rothenburg - ob - der-	Graz - - - 349
facturers—Paving:—	Copenhagen - 476	Tauber - - - 863	Guadalajara - - - 1502
London - - - 2206	Delhi - - - 24	Sydney - - - 120	Halle - - - 746
Provinces - - - 2828	Freiberg - - - 733	Tiiburg - - - 944	Hamburg - - - 774
Aubagne - - - 496	Fürth - - - 735	Tours - - - 609	Hanover - - - 784
Brazil - - - 1548	Givet - - - 522	Troyes - - - 609	Harburg-on-the Elbe 785
Brescia - - - 967	Hamburg (slate) - 777	Utrecht - - - 945	Heilbronn - - - 788
Edwardsville - - 1610	Jersey City - - - 1636	Vienna - - - 400	Hildesheim - - - 790
Galesburg - - - 1619	Mährisch Neustadt - 362	Wellington - - - 217	Jackson - - - 1634
Ghent - - - 415	Milan - - - 994	Zeitz - - - 893	Jamnagar - - - 27
Huntington (W. Va.) 1631	Moscow - - - 1140	Perborate of Soda Mfrs.:—	Jersey City - - - 1636
Maastricht - - - 934	Munich - - - 834	Provinces - - - 2938	Jungbunzlau - - - 353
Malonado - - - 2022y	New York - - - 1710	Percussion Cap Mfrs.:—	Karlsruhe - - - 795
Namur - - - 454	Nürnberg (slate) - 845	London - - - 2259	Kazanlik - - - 464
Pisa - - - 1905	Oeslau (slate) - - - 847	Provinces - - - 2938	Kischineff - - - 1129
Streator - - - 1808	Paris - - - 582	Barmen - - - 617	Klagenfurt - - - 354
Tournai - - - 457 & 458	Philadelphia - - - 1750	Lajta-Ujfalu - - - 423	Koniggratz - - - 355
Treviso - - - 1015	Probstzella (slate) - 856	Prague - - - 372	Königsberg - - - 799
Pea-Soup Sausages:—	Regensburg - - - 858	Riga - - - 1156	Krakow - - - 356
Heilbronn - - - 787	Riga - - - 1156	Vienna - - - 400	Leipzig - - - 810
Peanut Dealers:—	Stein - - - 874	Voslau - - - 405	Lemberg - - - 358
Cambridge City - 1560	Steinach - - - 874	Perforated Plate Mfrs.:—	Leyden - - - 934
Cleveland - - - 1590	Százarvám - - - 423	Aachen—Aix - la -	Linköping - - - 1263
New York - - - 1721	Turin - - - 1015	Chapelle - - - 637	Lisbon - - - 1087
Norfolk - - - 1736	Vaso (slate) - - - 33	Chicago - - - 1578	Logansport - - - 1646
Oakland - - - 1737	Vienna - - - 400	Cologne - - - 693	Lowell - - - 1651
Paris (Tex.) - - - 1741	Vysocan - - - 333	Cologne-Kalk - - - 695	Lyons - - - 539
Peoria - - - 1744	Warsaw - - - 1190	Hanover - - - 784	Malaga - - - 1225
Petersburg - - - 1745	Zagreb - - - 425	Leipzig - - - 810	Manila - - - 1997
San Francisco - - 1794	Penoil (Lead & Colored)	Manbeuge - - - 549	Marseilles - - - 548
Texarkana - - - 1812	Manufacturers:—	Munich - - - 834	Melbourne - - - 146
Peanut Butter Manfrs.:—	Nürnberg - - - 844	New York - - - 1721	Mexico - - - 1508
Natick - - - 1668	Penoil Case Manufrs.:—	Prague - - - 373	Milan - - - 994
New Westminster - 289	London - - - 2259	Raguhn - - - 857	Montpellier - - - 552
Peanut Roaster & Vending	Provinces - - - 2938	Saint-Dié - - - 59	Moscow - - - 1140
Wagon Manufrs.:—	Mariaschein - - - 363	Siegen-on-the-Sieg - 870	Munich - - - 834
Cincinnati - - - 1585	New York - - - 1721	Perforating Machine	Naples - - - 1000
Pearl Beads:—	Nürnberg - - - 844	Manufacturers:—	New York - - - 1721
Vienna - - - 388	Prague - - - 372	London - - - 2259	Newark (N. J.) - - 1671
Pearl Cutters:—	Penoil Machinery Mfrs.:—	Provinces - - - 2938	Newburgh - - - 1674
Idar - - - 792	New York - - - 1721	Berlin - - - 663	Nice - - - 556
Nixdorf - - - 365	Nürnberg - - - 844	Leipzig - - - 811	Norwich (N. Y.) - 1737
Pearl Merchants—See also	Saginaw - - - 1777	Paris - - - 582	Nürnberg - - - 844
Precious Stone Dirs.:—	Penoil Sharpener Manfrs:	Perforators—Metal — See	Offenbach - - - 848
Broome - - - 179	New York - - - 1721	also Metal Perforators:—	Olympia - - - 1738
	Pendant Manufaotrs.:—	Frankfort - on - the -	Örebro - - - 1269
			Osaka - - - 1411

Moody's Investment Rating Book Service

The Moody Rating Books give business ratings for the purpose of protecting an investor as well as for the purpose of protecting credit. It is as important to be able to learn whether the stocks and bonds in which one is thinking of investing are safe, as it is to know whether a check received is good. *Moody's Investors Service* issue four large volumes.

Under each firm or corporation mentioned in any volume, such items as the following are given: State laws under which the business was incorporated; brief history of the firm; capital stock; business managers; equipment, rating, and a percent suggesting safety of investment. Each volume is indexed at the front alphabetically under the name of the firm. The volumes are as follows:

1: *Rating Book and Analyses of Industrials* (called the "Red Book")

This volume gives ratings of firms handling large industries, in the United States and in foreign countries.

2: *Rating Book and Analyses of Public Utilities* (called the "Brown Book")

This volume gives the ratings of private firms handling business affecting the public in general, such as *telephone, water, electricity*. Ratings of some firms in foreign countries are included.

3: *Rating Book and Analyses of Governments and Municipals* (called the "Blue Book")

This volume gives ratings of bonds held by city, state or federal governments, such as *roads, public health, education*. It also includes thousands of foreign bond issues.

4: *Rating Book and Analyses of Railroads* (called the "Green Book")

On the opposite page is a specimen entry from *Public Utilities*. Consult it under *Johnstown Telephone Company*, at the paragraph headed "History," and tell when the firm was incorporated, and under which state laws. How many telephones does the company own? How many miles of wire are required? What is the population served?

Under Management, find who is the president of the company. When and where is the annual meeting held?

Under Comparative Income Account compare the gross revenues of 1917 with those of 1922.

Is the margin of safety high? In which year was it the highest?

Under Table A, Bond Records, give the date for the maturity of the bonds. The interest is payable in what months? What is the average income available? Are the bonds considered salable in certain localities? Is the security of these bonds considered good? What letters represent the rating?

The significance of the letters for rating in the Moody Investors Service is not the same as that for the Thomas Register. All the bonds and stocks are rated according to their security. Thus, the highest grade issues receive an "Aaa" rating, the next grade "Aa," then "A," "Baa," "Ba," "B," "Caa," etc., until the very poorest securities are reached.

These books can be found in many large libraries.

Specimen Entry from
Public Utilities
in the
Moody Investment Rating Book Service

JOHNSTOWN TELEPHONE COMPANY

History: Incorporated under laws of Pennsylvania, March 19, 1895. Franchise perpetual. Exchanges, 15; telephones, 13,898; miles of wire, 12,700; population served, 175,000. The Somerset Telephone Co. was purchased, as of Jan. 1, 1920.

Management: OFFICERS: Chas. Griffith, Pres.; E. D. Schade, Sec. and Gen. Mgr.; P. F. McAneny, Treas.; J. T. Carliss, Supt., Johnstown, Pa. DIRECTORS: Chas. Griffith, P. F. McAneny, Isaac Marx, M. F. Murphy, G. W. Swank, P. S. Fisher, H. W. Scherer, J. P. Thomas, F. W. Biesecker, C. A. Phillips, E. D. Schade. ANNUAL MEETING: Last Tuesday in January at Johnstown, Pa. OFFICE: Johnstown, Pa.

Comparative Income Account, Years Ended Dec. 31

	1922	1921	1920	1919	1918	1917
Gross revenues	\$457,882	\$443,410	\$407,209	\$287,551	\$253,280	\$231,074
Operating expenses and taxes	275,901	278,310	259,246	157,551	132,519	101,873
Net operating revenues..	\$181,981	\$165,100	\$147,963	\$130,000	\$120,761	\$129,201
Fixed charges	14,950	13,300	10,000	10,000	10,000	10,000
Surplus above charges...	\$167,031	\$151,800	\$137,963	\$120,000	\$110,761	\$119,201
Margin of safety.....	92%	92%	93%	92%	92%	92%
Dividends paid	166,980	151,800	137,963	120,000	108,000	108,000
Final surplus	\$51	.....	.....	.....	\$2,761	\$11,201
Earned on stock per share....	\$6.00	\$5.66	\$6.00	\$6.00	\$6.15	\$6.62

Table A.—Bond Records and Ratings (Based on Five Year Income Results, Etc.)

NAME OF ISSUE	Interest Payable	Maturity	Authorized	Outstanding	Average Income Available	Interest Required Per Annum	Factor of Safety	Security	Salability	Rating
1. Johnston Tel. Co. 1st ref. 5s..	F&A	Ag. 1942	\$300,000	\$255,000	\$149,161	\$12,750	91%	High	Local	Aaa

Note: Average income available is the average net income available for interest charge, after deducting taxes, depreciation, etc., for last five years shown in income account. Interest requirement is the current requirement. The ratings are based not only on the statistical exhibits and averages but other considerations are given due weight, such as the general financial condition of the property, character of its business, relative position of the issue, etc. For full explanation, see Introduction. For key to ratings, see pages VII to XXI.

Other Credit Rating Books

There are many general credit rating agencies in the United States; most cities have their local agencies. Local banks will often give ratings, and advise regarding investments.

Two well known rating agencies issue the following publications:

Bradstreet: Book of Ratings.

Dun: General Reference Book.

Both of these publications are confined to private subscriptions; neither of them can be found in public libraries.

Guides to

Miscellaneous Business Reference Books

2400 Business Books:

The above title is that of a book which is of great service to business men who wish to know what reference books are published on their special business.

To gain some idea of the range of business interests included, see if the following appear on the right hand column of the opposite page, which is a specimen entry from this book under the word *Business*:

Florist business

Ice trade

Millinery

Banks

Umbrella trade

Automobile trade

If one were to trace the reference books for the *florist business*, for example, he would look in the body of the book for *florists*, alphabetically, where a number of references for the *florist business* would be found. Among these references would be one to the word *directories* which would be followed by a number. He would then turn to the word *directories*, in alphabetical order, trace the number and find the name and address of a classified directory of American and Canadian florists. If reference is made to *directories*, but no number is given, look for the business in sub-alphabetical order under the word *directories*. Reference books for every business mentioned on the opposite page could be traced in a similar way. Even directories for business in foreign countries are often given. Under the word *Periodicals*, many valuable business magazines and papers are listed.

Industrial Arts Index:

An index to *magazine articles* on business subjects may be of great value in the commercial world. The one which is most likely to give references to such articles is entitled *Industrial Arts Index*. It is issued ten times a year, and indexes about 150 of the best technical journals in all lines of business, also guiding to many United States bulletins dealing with industrial subjects.

Specimen Entry

from

2400 Business Books

Directories, and other reference works to which this book refers, are indispensable in their respective lines of business.

For Example; under *Banks and banking*, a reference would be found to:

Bankers' Encyclopaedia: In this work each town in the United States which has a bank is listed. The first arrangement is alphabetically by states; the second by towns under the state. The banking laws of the state are given, and also state officials. The location of each town on a state map is indicated. Local banks are listed, city officials named, population and other information given.

Under *Newspaper business*, a reference is made to the directory described on pages 14-15.

Business and trade headings used in this book:
 Accountants' offices; Acetylene plants; Actuaries; Advertising—Agency business; Agricultural implements and machinery trade; Agriculture; Aircraft industry; Arbitrage; Architects' offices; Architects' offices—Landscape; Architects' offices—Naval; Art dealers; Auditors' offices; Automobile accessories business; Automobile trade; Awning trade; Baking trade; Banks and banking; Bee industry; Bond houses; Book trade; Brick trade; Building and loan associations; Building material trade; Building trades; Burlap trade; Butter trade; Canning trade; Carpet trade; Cement trade; Chain stores; Chemical and drug trade; Clothing trade; Coal trade; Coffee trade; Coke trade; Collecting of accounts; Commissioners of deeds; Confectionery trade; Container trade; Cooperative stores; Copper industry; Cordage trade; Corset trade; Cotton goods trade; Cotton seed trade; Cotton trade; Cutlery trade; Dairy industry; Dentists' offices; Dressmaking business; Drug stores; Dry goods trade; Dyeing trade; Electric light and power companies; Electric railroads; Electrical supply trade; Embroidery trade; Employment bureaus; Engineering offices; Engineering supply trade; Export trade; Express service; Felt trade; Fertilizer trade; Fiber trade; Film trade; Fish trade; Five and ten cent stores; Flag trade; Flax trade; Florist business; Forestry business; Forwarders; Foundry trade; Fruit trade; Fur trade; Furniture trade; Galvanizing trade; Gas companies; Glass trade; Glove trade; Grain trade; Grocery trade; Gypsum trade; Hardware trade; Harness trade; Hat trade; Hemp trade; Hosiery trade; Hotels; House-furnishings trade; Ice cream business; Ice trade; Import trade; Instalment business; Insurance—Agency business; Iron and steel trade; Jewelry trade; Jobbing, commission business, etc.; Jute trade; Knit goods trade; Lace trade; Laundry business; Lawyers' offices; Leather goods trade; Leather trade; Lime trade; Lumber trade; Machine shops; Machinery trade; Mail order business; Marine engine and boiler trade; Mattress trade; Meat trade; Medical supply trade; Men's furnishings goods trade; Metal trade; Mill supply trade; Millinery trade; Mine supply trade; Mines and mining; Mineral industry; Motion picture trade; Motor cycle trade; Music trade; Navy yard work; Newsdealers; Newspaper business; Notaries public; Notion trade; Novelty trade; Nursery trade; Nut trade; Office building management; Office supplies business; Oil trade; Oleomargarine trade; Optical trade; Organ trade; Packing trade; Paint trade; Painting and decorating trade; Paper box trade; Paper trade; Pattern shops; Pawnbroking business; Petroleum industry; Phosphate trade; Physicians' offices; Piano trade; Plumbing trade; Pottery trade; Poultry business; Printing business; Produce trade; Promoting; Public service corporations; Publishing trade; Quarries; Railroads; Real estate business; Refrigeration trade; Restaurant business; Retail stores; Retailing; Rolling mill industry; Rubber trade; Sail making industry; Savings banks; Sawmills; Seed trade; Sewing machine trade; Sheep raising business; Ship chandlers; Shipbuilding trade; Shoe trade; Silk trade; Sporting goods trade; Stationery trade; Stock brokerage business; Stone trade; Stove trade; Sugar trade; Surgical instrument trade; Tailoring trade; Talking machine trade; Taxi business; Tea trade; Telegraph industry; Telephone industry; Tent trade; Textile trade; Theatres; Tin plate trade; Tire trade; Tobacco trade; Toy trade; Tractor trade; Trunk trade; Trust companies; Umbrella trade; Underwear trade; Upholstery trade; Vehicle trade; Warehouse business; Waste trade; Water transportation business; Window dressing; Window shade trade; Wireless stations; Wool trade; Yarn trade.

Business Magazines; Newspapers

Almost every profession or business in existence has its own magazine, or special publication. A list of the general and special magazines and newspapers published in the United States is issued every year in a directory entitled:

Ayer: Newspaper Annual and Directory.

The specimen entry below is from the index to the *Class and trade publications* in this annual, which are listed at the back in an appendix.

Consult it and tell on which page in the annual one could find a list of publications devoted to the following interests: *bee keeping; aviation; coal and coke; confectionery and ice cream; deaf; blind; advertising?*

	Page		Page
ACCOUNTS—see <i>Business and Office Methods</i>	1245	CIVIL SERVICE	1246
ADVERTISING	1240	CLAY—see <i>Brick, etc</i>	1244
AERONAUTIC.....	1240	CLEANING AND DYEING.....	1246
AGENTS.....	1240	CLOTHING AND FURNISHING GOODS.....	1246
AGNOSTIC, FREE THOUGHT, ETC	1240	COAL, COKE, ETC.....	1246
AGRICULTURAL.....	1229	COLD STORAGE—see <i>Ice, etc</i>	1267
AMERICAN INDIAN	1240	COLLECTORS, NUMISMATIC, PHILATELIC, ETC.....	1246
ANTI-CLERICAL—see <i>Patriotic, etc</i>	1284	COLLEGIATE.....	1247
ANTI-PROHIBITION—see <i>Liquor and Anti-Prohibition</i>	1274	COLORING MATERIALS—see <i>Painting, etc.</i>	1284
ANTIQUARIAN—see <i>Collectors, etc</i>	1246	—also <i>Cleaning and Dyeing, etc</i>	1246
ANTI-TUBERCULOSIS	1240	COMING CONVENTIONS.....	1253
ARCHITECTURE AND BUILDING.....	1241	COMMERCIAL AND INDUSTRIAL.....	1253
ART.....	1242	COMMERCIAL TRAVELERS.....	1254
ASTROLOGICAL	1242	CONCRETE—see <i>Cement and Concrete</i>	1245
ATHLETICS AND PHYSICAL CULTURE	1242	CONFECTIONERY AND ICE CREAM	1254
AUCTIONEERS	1242	CONTRACTING, EXCAVATING, ETC	1254
AUTHORS—see <i>Books, etc</i>	1244	CONTRACTS (PUBLIC)	1254
AUTOMOBILE, GAS ENGINES, ETC.....	1242	CO-OPERATIVE TRADING.....	1254
AVIATION—see <i>Aeronautic</i>	1240	CORDAGE—see <i>Miscellaneous</i>	1299
AWNINGS, SHADES, TENTS, ETC.....	1243	COSMETICS—see <i>Soap, etc</i>	1293
BAKING	1243	COTTON	1254
BANKING—see <i>Financial and Banking</i>	1260	COTTON GOODS—see <i>Textile</i>	1297
BARBERS AND HAIRDRESSERS	1243	COUNTY GOVERNMENT—see <i>Municipal, etc</i>	1280
BARRELS, BOXES AND PACKAGES.....	1243	COUNTRY LIFE—see <i>Suburban, etc</i>	1295
BEE KEEPING....	1243	CREAMERY—see <i>Milk, etc</i>	1279
BLACKSMITHS AND HORSE SHOERS... ..	1244	CROCKERY—see <i>Pottery and Glass</i>	1286
BLIND, THE.....	1254	CULINARY—see <i>Food and Culinary</i>	1262
BOOKKEEPING—see <i>Business, etc</i>	1245	DAIRY—see <i>Milk, etc</i>	1279
BOOKS, BOOK TRADE AND WRITERS	1244	DANCING	1254
BOTANICAL—see <i>Scientific</i>	1291	DEAF, THE.....	1257
		DECORATING—see <i>Painting, etc</i>	1284

On the opposite page, a specimen entry from the *body* of this annual is given under the state of Missouri. The main body of the directory is arranged under states; under each state the towns in it are sub-arranged alphabetically. In what county of Missouri is Jerico Springs located? Read the brief description of the town. What paper is published there? Under Joplin, name the editor of the “News Herald.” In what year was this paper established? How large is the circulation of the Sunday edition? Which paper in Joplin has the largest circulation? When was the “Capital News” of Jefferson City established?

Could one find the editor of a paper called the “Courrier” without first knowing where the paper is published?

Notice that a brief description of each town is given.

A Specimen Entry from Body of
Ayer: Newspaper Annual and Directory

JACKSON †, pop. 2,105 (N 8); CAPE GIRARDEAU Co. (S.E.), pop. 27,621. 10 m. N.W. of Cape Girardeau. St. L. Iron Mtn. & S'thrn; Cape Girardeau N'thrn R.Rs. Tel. Exp. Banks. Flour mills. tile factory, brick yards, poultry dressing and refrigerating plant. Ships wheat, live stock, etc. Active trade center.

Deutscher Volksfreund (German) Thursday Republican..... 1886 13 13¼×19½ 1.50 1,100
FREDERICK E. KIES & BRO., Editors and Publishers.

Missouri Cash-Book (*Uses mats*)..Thursday Democratic..... 1870 13 13¼×19¾ 1.00 ‡1,240
C. C. OLIVER, Editor and Publisher.

JACKSONVILLE, pop. *300 (H 3); RANDOLPH Co. (N.C.), pop. 26,182. 14 m. N. of Moberly. Wabash R.R. Tel. Exp. Bank. Coal mining, general farming and stock raising.

Times Friday Independent.. 13 11×17¾ 1.00
E. C. LANKENAU, Editor and Publisher.

JAMESON, pop. *400 (E 2½); DAVIESS Co. (N.W.), pop. 17,605. 30 m. NW. of Chillicothe. Wabash R.R. Tel. Exp. Banks. Farming, stock raising, fruit growing.

Gem Thursday Independent.. 1913 13 11×17¾ 1.00 ‡500
ALLEN F. WADE, Editor and Publisher.

JAMESPORT, pop. 611 (E 3); DAVIESS Co. (N.W.), pop. 17,605. 20 m. N.W. of Chillicothe Chic. & Pac. R.R. Tel. Exp. Banks. Mineral spring of medicinal value. Live stock and grain shipped.

Gazette Thursday Democratic..... 1877 13 13¼×19¾ 1.00 550
THOMAS R. SHAW, JR., Editor and Publisher.

JASPER, pop. 664 (D 8); JASPER Co. (S.W.), pop. 89,673. 23 m. N.E. of Joplin. Mo. Pac. R.R. Tel. Exp. Banks. Flour mill, grain elevators. Agricultural district. Largest stock shipments.

News Thursday Local..... 1898 13 11×17¾ 1.50 700
ARTHUR F. DRAKE, Editor and Publisher.

JEFFERSON CITY †, pop. *12,780 (H 5); COLE Co. (C.), pop. 21,957. The State Capital. On Missouri R., 110 m.W. of St. Louis. Mo., Kans. & Tex.; Mo. Pac.; Chic. & Alton R.Rs. Tel. Exp. Banks. Flour mills, foundry and machine shops, breweries, shoe, paper box, bottling, wagon, ice, overalls, broom saddle tree and motor factories and other industries. Coal and limestone exist in vicinity. General trade center. State House, State Library, Lincoln Institute (a negro normal school), the State Penitentiary, etc.

Capital News.....Morn. ex. Mon...Independent.. 1910 13 15½×19¾ 4.80 2,875
CHARLES H. BUCHANAN, Editor; CAPITAL NEWS PRINTING COMPANY (Inc.), Publishers.

Democrat-Tribune Evg. ex. Sun.....Democratic..... 1902 13 15½×21¾ 4.80 1,825

Democrat-Tribune.....Thursday Democratic..... 1875 13 13¼×19¾ 1.00 2,100
JOSEPH GOLDMAN, Editor; COLE COUNTY DEMOCRAT PRINTING COMPANY, Publishers.

Missouri School Journal.....Monthly Educational... 1882 15 5×8½ 1.25 ‡2,000
WALKER & HARRIS, Editors; MISSOURI SCHOOL JOURNAL PUBLISHING COMPANY.

Missouri Volksfreund (German)..Thursday Ind. Dem..... 1876 13 15½×20 1.00 2,235
JOHN F. KOESTER, Editor and Publisher.

Mother's Appeal Monthly Philanthropic 1914 15 5×8 1.00 *12,000
JULIA A. BAKER, Editor; BAKER PUBLISHING CORPORATION.

Post.....Evg. ex. Sun.....Republican..... 1908 13 15½×21 4.80 1,750

Post.....Saturday Republican..... 1894 13 15½×21 1.00 1,500
JOSEPH SAILER, Editor and Publisher.

Western Messenger (Negro).....Friday Baptist..... 1899 13 13¼×19½ 1.00 1,500
JNO. GOINS, D.D., Editor and Publisher.

JERICO SPRINGS, pop. 395 (D 7); CEDAR Co. (S.W.), pop. 16,080. 48 m. N.W. of Springfield. Nearest railroad sta., Sheldon. Mo. Pac. R.R. Tel. Exp. Banks. Coal, lead and zinc. Mineral spring. Fire clay mines. Farming and grazing district.

Optic Friday Independent.. 1888 13 15½×21½ 1.00 *460
A. M. HEIFNER, Editor; H. T. HEIFNER, Publisher.

JONESBURG, pop. 456 (K 5); MONTGOMERY Co. (E.), pop. 15,604. 71 m. W.N.W. of St. Louis. Wabash R.R. Tel. Exp. Bank. Mill. Farming.

Journal Thursday Democratic..... 1879 13 15½×19¾ 1.00 782
J. T. & MRS. J. T. JONES, Editors and Publishers.

JOPLIN, pop. *32,848 (D 8); JASPER Co. (S.W.), pop. 89,673. 68 m. S. of Springfield. Mo. & N. Ark.; Mo., Okla. & Gulf; St. L. & S. Fran.; Mo. Pac.; K. City S'thrn; Mo., Kans. & Tex. R.Rs. Tel. Exp. Banks. Rich lead and zinc mines; coal abundant. Manufactures include large lead works, cooperage works, large flour mills, eight foundries and machine shops, and various minor industries. Agriculture.

Afro-American Leader (Negro)...Saturday Republican..... 1915 13 13¼×19¾ 1.50
MELISSA FUELL-CUTHER, Editor; C. W. CUTHER, Publisher.

American Zinc and Lead Journal Monthly.....Mining & Mfg. 1915 17 8¾×11½ 1.00 ‡4,400
FRANK EBERLE & COMPANY, Publishers.

Globe (*Uses mats*) { Morn. ex. Mon...Democratic..... 1896 12½ 17¼×20 5.20
A. B. C. Statement (*week-days*), 22,577
Sunday edition A. B. C. Statement, 26,896
P. R. COLDREN, Editor; JOPLIN GLOBE PUBLISHING COMPANY (Inc.).

Labor Tribune Friday Labor..... 1915 13 15½×21¾ 1.00
JOPLIN LABOR UNION ASSOCIATION, Publishers.

Missouri Trade Unionist Wednesday....Labor 1907 13 13¼×20 1.00 2,500
CHARLES W. FEAR, Editor and Publisher.

News Herald { Evg. ex. Sat. & } Ind. Rep..... 1872 12½ 17¼×20 5.20
Sun. (Sun. } A. B. C. Statement (*week-days*), 14,319
Morn.) } Sunday edition...A. B. C. Statement, 13,938
L. M. DAVIS, Editor; JOPLIN NEWS-HERALD NEWSPAPER COMPANY, Publishers.

Southwestern Automobilist.....Monthly { Motoring & } 1912 22 7½×10 1.00 3,700
Good Roads. }
CHARLES W. FEAR, Editor and Publisher.

World.....Friday Independent.. 1915 13 13¼×19¾ 1.00
CHARLES E. BROWN, Editor and Publisher.

CIRCULATION: Bold face—sworn. * Detailed statement. † Publisher's report. Plain figures estimated.
POPULATION: U. S. Census, 1910. * Estimated. † County Seat. ♦ Width (pica ems). ▽ Type page (inches).

Mailing Lists

A large amount of business is carried on by mail, such as the sending of bills, checks, announcements. For the purpose of advertising, it is desirable to have lists of persons or firms especially interested in the line of business to be announced. It is very important, therefore, to know where to find up-to-date classified lists. Many directories or registers are issued in separate printed form, such as:

Medical directory	Crockery dealers
Dental register	Engineers
Directory of the legal profession	Insurance
Educational directory	Motion pictures
Furniture dealers	Hotels

The publishers of these, and corresponding registers can be traced through *2400 Reference Books*, described on pages 12-13; this book also gives other guides under the heading *Mailing Lists*.

Mailing lists for many purposes can be secured from R. L. Polk and Company, publishers of city directories and state gazetteers. Detroit, Mich.

Business Under City; County; State; Federal Governments

Much of the business of the country is under the direction of the government. Most of our educational institutions are under local or state control; the parcel post has displaced much of the express business; many city water and lighting plants are under city government.

Some branches of the government business are self-supporting, such as the postal service, while many others are supported by taxation, such as education, fire and police protection.

The expenses, extent of work done, names of officials and other items connected with a business which is under any branch of the government are reported by that branch as an official report. The most important of such reports are kept in public libraries, and also in the office of the department which sends out the report.

Questions for Commercial Indexes

NOTE—Numbers in margin at right of questions below, give values on scale of 100%

- 1—Give the title of the book which guides to directories and other reference books published for almost any line of business, ... =8
- 2—Give the title of the magazine index to technical business journals and to bulletins of the United States Government dealing with industrial subjects =8
- 3—Under the management of which Department of the Government has much of the express business been displaced? =4
- 4—Which of the publications studied would give the name of the president of the *Shredded Wheat Biscuit Company*, a brief history of the firm and its financial rating? =8
- 5—
 - a. Which of the publications studied would give a list of firms engaged in the manufacturing of typewriters in the *United States* under the word *typewriters*? 4 each =8
 - b. Which publication would give the cities of the *world*, manufacturing typewriters? .. 4 each =8
- 6—
 - a. If one wished to locate the hospitals in a city, the index of which section of a city directory should be consulted? 4 each =8
 - b. Where in the directory is this section usually placed? 4 each =8
- 7—
 - a. In which section of a city directory could a list of the druggists of the city be found? 4 each =8
 - b. Where in the directory is this section placed? 4 each =8
- 8—
 - a. In which section in a city directory could one find between what streets a certain house number comes? 4 each =8
 - b. Where is this section located? 4 each =8
- 9—What publication gives information for a state, similar to that which a city directory gives for a city? =8
- 10—Name the two credit rating books which are not open to the public, and can be consulted only by subscribers 4 each =8
- 11—Give, in order, the five main classifications of information in *Kelly's Directory of Merchants, Shippers, and Manufacturers of the World*. =8
- 12—
 - a. Whose *Newspaper Annual and Directory* is explained in the text?
 - b. Is this directory arranged under the names of the papers and magazines, or under the states and towns in which they are issued?
 - c. Should the body of this directory, or an index to an appendix, be consulted to find which papers are devoted to certain interests; drugs, for example?
 - d. To what word should one first turn in the body of this directory to find the name of the editor of the *Republican*, published in Springfield, Massachusetts? Give the second word which should be consulted alphabetically, and after it the third word. 3 each =12
- 13—Name at least four items of information given in a Bankers' Encyclopaedia. =4

**Plan for Checking Work
When Training in the use of Reference Material
is organized as a
Required Feature of the Regular English Course**

Schools which use these pamphlets as a required feature of their English courses will find it convenient to have a plan for marking the lesson. For this purpose a number appears after each question to indicate its value on the scale of 100%. Because this work requires but a few days each term, students are in danger of considering it unimportant unless it is carefully guarded. A reference question in examinations emphasizes the work. If a certificate for passing in an English course is not granted unless the work in the library pamphlet for that course has been completed, the fact will be established in the student's mind that the school considers training in the use of reference books to be as necessary as is training in other educational lines.

Reference Guides

That Should be Known and How to Use Them

By
Florence M. Hopkins
Librarian
Central High School, Detroit, Michigan



*This Pamphlet Pertains to
Government Publications—City: State: Federal*

THIRD EDITION

PUBLISHERS *and* PRICES
ARE GIVEN ON THE
REVERSE SIDE OF THIS COVER

Copy 2

Copyright 1923
by
FLORENCE M. HOPKINS

The pamphlet on *Webster's New International Dictionary* may be purchased at the rate of 10 cents per copy; in lots of fifty, for 8 cents each plus carriage, from the Publishers of the Dictionary.

G. & C. MERRIAM COMPANY,
SPRINGFIELD, MASS.

Other pamphlets, as listed in the *Foreword*, on the opposite page, may be purchased at the rate of 25 cents per copy; in lots of fifty, for 17½ cents each plus carriage, from

THE WILLARD COMPANY,
601 West Fort Street,
DETROIT, MICH.

NOTE: Arrangements have been made between The G. & C. Merriam Co. and the Willard Co. by means of which the lesson on Webster's New International dictionary can be sold much more cheaply than can the lessons on miscellaneous reference books. It is hoped that this plan will make it possible for schools to adopt at once the dictionary pamphlet, as a required text book for the first term of high school English work, and the other pamphlets later.

Foreword

This pamphlet is one of a series on the use of reference books. The complete series constitutes a third edition of *Reference Guides That Should be Known and How to Use Them*, which appeared first in 1916 in bound form as a text book for high and normal schools.

The third edition has revised and condensed the eleven pamphlets of the second edition into eight pamphlets, one for each of the eight high school courses in English, as listed below. The revised text can also be adapted to meet the needs of college freshmen who have had no special training in the use of reference tools. No important change has been made in the subject matter. Each pamphlet contains sixteen pages; even though the subject may be new, it should be mastered in a little more than an hour's time.

List of Pamphlets in the Series

Graded to correspond with High School English Courses

English 1—Webster's New International Dictionary.

English 2—Parts of a book: Concordances.

English 3—Encyclopaedias.

English 4—Library classification and card catalogue.

English 5—Year-books.

English 6—Indexes to periodical literature.

English 7—Commercial guides.

English 8—Government publications: city, state, and federal.

It might be well to give the entire series to high school seniors, if the work has not been organized grade by grade. College freshmen could do the work independently; so also could anyone needing reference tools, club workers, for example. A survey was recently made by the faculty of one of our state universities, concerning causes of failure in the freshman college year: four statements were formulated, one of which reads as follows: "Students should be trained to use ordinary means of securing information, such as: *the table of contents, the index, the dictionary, the encyclopaedia, the card catalog, the Readers' Guide to Periodical Literature, the newspaper, the informational magazine.*" It is therefore evident that a need exists for some plan of teaching the use of reference material which can be fitted into the crowded high school and college courses without undue intrusion or expense.

These simple lessons have been prepared in the hope that they will aid students to become familiar with standard reference material. The inclusion of specimen pages from the reference books studied makes it possible for each student to follow all illustrative examples without making a trip to a library and waiting to have access to the complete reference work. No library will furnish a sufficient number of copies of expensive reference books for this purpose; neither can a library afford to have pages in expensive reference books as badly worn and marked as this work would cause them to become.

Much dependence is placed upon the co-operation of the English departments when the work is given in high schools, each teacher of English being expected to devote about three recitation periods to the pamphlets which are graded to correspond with the respective English courses taught. In college, it would seem to be a very simple matter for the rhetoric department to plan to have their freshmen read these pamphlets early in the term, either as assigned class work, or independently, time being allowed, so that the work could be done without overpressure. Satisfactory results might be assured if students understood that at the first rhetoric examination a few leading questions selected from those on the inside of the back covers of the pamphlets would be asked.

According to the library code for capitalization all words in a title begin with a lower case letter instead of with a capital, except the first word, proper nouns, and adjectives derived from proper nouns. Certain specimen pages will show that some publishers follow this code.

*The following paragraphs are taken from the
Foreword of the First Edition*

Possibly the best way of presenting the points which it is hoped this series of lessons may emphasize is to quote directly from the preface of a Bulletin on "Library instruction in universities, colleges and normal schools," from the United States Bureau of Education, 1914—No. 34.

Many educators of note, as well as college and university librarians, have emphasized the urgent necessity of instruction and training in "book-using skill." . . .

The place of the library in the work of all departments is one of increasing importance. The library is a resource or reservoir from which the student should draw constantly for information and inspiration. . . . Every month of delay in instructing him in the meaning and use of the library lessens the efficiency of his course.

. . . Every new student should be required to take some course in which is given definite practical instruction in the handling of library tools. . . . Such a course, moreover, should not only be required, but it should constitute a definite part of the work required for a degree.

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Government Publications

City: State: Federal

Public Documents include publications of the nation, state, county and city. Many reports and special pamphlets issued by these governing bodies contain much very valuable material, the general nature of which should be familiar to every person, though most of the reports pertain to statistics, detailed local matters, laws, and other interests by far too cumbersome for examination except by those personally concerned. Reference work among public documents is a branch by itself. However, the general public should know a few of the main publications, and be familiar with the plan upon which they are issued.

The affairs of government are usually managed by "Boards" or "Commissions" having charge of different needs, within limited districts, such as Education; Health; Fire; Police; Lighting; Water; and many others. A city, has its own local Board of Education; a county, its County Commissioner of Education; a state, its State Board of Education: the United States receives educational reports from each state, issues valuable pamphlets, and serves as a center for unifying the educational interests and statistics of the entire country. A corresponding series is true for health reports; labor reports, and many others.

A very close study is made of agricultural interests through State and United States Boards of Agriculture. The *Agricultural Year-book*, which is issued by the United States government in larger numbers than any other one book in the country, contains articles selected from the many publications of the United States Department of Agriculture.

Each individual Board in these vast numbers of cities, counties, and states is making a special study of conditions under its own care, and the United States government a corresponding study for the interests of the country as a nation. Even nations of the world interchange their documents. Since public documents are never advertised we are apt to forget them, and thereby miss much valuable reference material.

City Publications

Many cities publish a *manual*, which gives city officials and general matters of city concern. Each department makes a yearly report of expenses and of the work which it has accomplished. These reports are usually kept on file in local public libraries, as well as in the offices of the city departments themselves. It is interesting to examine local reports occasionally. The number of gallons of water pumped for one's own city, the miles of water pipe needed to deliver them,

and other interests connected with the water supply can be found in the report of the *Water Commission*. The number of fires, their causes, and amount of loss, can be found in the reports of the *Fire Commission*. The number of pupils in each grade in the city schools, the value of school property, the cost per pupil for instruction can be found in the report of the *Board of Education*. Much information in connection with the government of a locality can be found by consulting the reports of the Boards under whose management it falls.

Below is given a list of activities common to most city governments, though of course, slight differences occur in local places. Read the entire list, and try to realize the *general* character of city departments.

Art Commission
Buildings and Safety Engineering
City Plan Commission
Contingencies and Reserves
Fire Commission
Garbage
General City Departments, and Officials
Mayor
Common Council
City Clerk
Corporation Counsel
Controller
City Treasurer
Board of Assessors
Civil Service Commission
Election Commission
Research Engineer
Miscellaneous
General Road
House of Correction
Library Commission
Markets
Motor Transportation
Parks and Boulevards
Police Department
Public Buildings
Public Entertainment
Public Health
Public Lighting
Public Sewers
Public School
Public Works—General
Purchasing Department
Recorder's Court
Recreation Commission
Water Commissioners
Welfare Commission

County Publications

Each *county* also has its special activities, boards, commissions, and reports. Read the list below, which is suggestive of county supervision.

County clerk; medical examiner; library service; park system; game and fish warden; road commission; school commission; treasurer; register of deeds; circuit court commission; juvenile division.

State Publications

Most states publish a volume giving a general survey of the work carried on by the state issuing it. Generally speaking, such a volume is issued each time a new legislature is elected. The titles of these books vary in different states, but one of the following words is usually found in connection with the name of the state—*Manual, Blue Book, Red Book, Directory, Register*. Every citizen should be familiar with the publication issued for his own state. The information included differs slightly in different states, but each would probably contain:

- a. *Constitution of the United States.*
- b. *Its own state constitution.*
- c. *Members of the United States Congress.*
- d. *Members of its own state legislature.*
- e. *County officials and activities.*
- f. *State institutions.*
- g. *Officials in prominent state positions.*
- h. *Index at back.*

Reports and publications from such state boards and commissions as the following should be recognized as sources of much valuable information:

*Labor Commission;
Library Commission;
Bank Commission;
Dairy and Food Commission;
Insurance Commission;*

*Fish Commission;
Board of Agriculture;
Board of Education;
Board of Health;
Board of Corrections and Charities.*

Each state publishes its own laws, carefully indexed. These laws usually require two or three large volumes.

Monthly List of State Publications

Aside from their regular official reports, most of these Boards or Commissions publish pamphlets containing special investigations made in their own fields. In order to create a center from which such reports can be made known, they are sent to the Library of Congress, in Washington, for record and cataloguing. They are listed every month under the title, *Monthly List of State Publications*, and are indexed at the end of the year under author and subject. These reports and publications include a wider range of subjects than is generally supposed, as can be seen by consulting the annual index under such words as *milk, flies, birds, music, books*.

United States Publications

In general, the work of the United States government is divided into large departments, each one being devoted to its special field, as:

Agriculture, Commerce, Justice, Labor, State, Interior, Post Office, Treasury, War.

Most departments are subdivided into bureaus and divisions, each branch of which publishes valuable reports and statistics pertaining to its own interests.

Each month, all of the current reports from the various departments and bureaus are indexed under departments; this index is entitled:

Monthly Catalogue of United States Public Documents.

At the end of a year, the monthly catalogues are bound together, and indexed at the back. The subjects have a very wide range, as do the *Monthly List of State Publications* described on page 5.

The publications from departments, bureaus, Senate and House fill between **three and four hundred large volumes** every two years.

It is impossible in a brief outline to give more than a suggestion of this vast field of work. The government describes its own publications in the following words:

“The government of the United States is the greatest of all publishers of scientific works. It employs thousands of scientists, who are engaged the year round in making researches and investigations in all branches of agriculture, in geology, in mining, in electricity, in chemistry, in astronomy, in engineering, in aviation, in preventive medicine, in forestry, in irrigation, and in almost all other branches of scientific inquiry.

The results of all these activities, from the most comprehensive and effective organization ever known, are constantly reduced to print and poured out in an incessant flood from the LARGEST PRINTING WORKS IN THE WORLD.

The greater number of them are sold by the Superintendent of Documents, located in the government printing office. The government did not establish this sales office for the purposes of profit, but as a public convenience. The prices charged cover only paper and printing, no charge being made for the services of the statesmen and scientists who are the authors of the astonishingly varied books, pamphlets, periodicals, and maps, and no commissions being allowed to anybody.”

The cost of operating the United States, or Federal Government is between three and four billion dollars a year.

Price Lists

In order to let the public know what publications are for sale, the Superintendent of Documents issues small classified catalogues, known as *Price lists*. Each *Price list* or catalogue enumerates United States government publications pertaining to some one subject, and gives the price for which each publication can be secured. These prices range from a few cents to several dollars. A reproduction of the subjects, as numbered for these catalogues is given on page 8. Read the note above the numbers. Any numbered *catalogue* will be sent free by the Superintendent of Documents at Washington, upon application. Lists can be asked for by subjects if the numbers are not known. These lists are frequently revised, as new publications are constantly being issued.

To gain some idea of the range of subjects included in these catalogues, read the headings on page 8 for the numbers indicated below.

11; 21; 24; 31; 33; 39; 51; 53; 71.

The paragraph below on *Milk* is taken from Price list number 11, on *Foods and Cooking*, to illustrate details. Consult it and answer the following questions:

What is the title of the article first mentioned under *Milk*? It was prepared in what year? How many pages are devoted to it? It appeared as what number in what publication? The full article can be secured for what price from the Superintendent of Documents? (The number at the end of the line (A 1. 9: 413) is the classification number.) What three articles are listed in the *contents*?

In what *Year-book*, for what year, and on what pages, does the second mentioned article appear? This article can be secured in a separate paper pamphlet for what price?

Read the remaining entries.

What other Price lists are referred to in the last line?

Read the government instructions on "*How to Remit*," near the bottom of page 8.

Specimen entry from price list No. 11

MILK.

Care of milk and its use in home. 1910. 20 pages. (Farmers' Bulletin 413.)
Paper, 5c. A 1.9: 413

CONTENTS.—Care of milk in the home.—Home pasteurization of milk.—Food value of milk.

Condensed and desiccated milk. Pages 335 to 344. [From Agriculture Year-book, 1912.] Paper, 5c. A 1.10: 595

Digestibility of raw, pasteurized, and cooked milk. (In Farmers' Bulletin 149, pages 27 and 28. Reprint 1909.) Paper, 5c. A 1.9: 149

Use of milk as food. 1909. 44 pages, illus. (Farmers' Bulletin 363.) Paper, 5c. A 1.9: 363

See also Price lists 38, Animal Industry, and 51, Health, Disease, and Sanitation.

Price Lists of Government Publications

The only publications sent free by the Superintendent of Documents are his Price Lists. These briefly describe each available book or pamphlet, and all have been revised to embrace current topics as follows:

10. **Laws.** Federal Statutes, and compilations of laws on various subjects.
11. **Foods and Cooking.** Includes nutrition, canning, and cold storage.
15. **Geological Survey.** Covers geology, mineral resources, and water supply.
16. **Farmers' Bulletins, Agricultural Reports, Yearbooks.** Numerical lists; all are found by subject in other lists.
18. **Engineering and Surveying.** Rivers, harbors, tides, terrestrial magnetism.
19. **Army and Militia.** Manuals, aviation, ordnance pamphlets, pensions.
20. **Public Domain.** Public lands, homesteading, railroad land-grants.
21. **Fishes.** Includes oysters, lobsters, and mussels, sponges, and hatching experiments.
24. **Indians.** Ethnology, mounds, antiquities, Indian wars, etc.
25. **Transportation.** Railroads, shipping, Postal Service, telegraphs, etc.
28. **Finance.** Foreign and domestic banking, currency, accounting, coinage, Liberty loan, War Finance Corporation.
31. **Education.** Includes agricultural and vocational education and libraries.
32. **Insular Possessions.** Guam, Hawaii, Philippines, Porto Rico, Samoa, Virgin Islands, and Cuba.
33. **Labor.** Cost of living, food control, employers' liability, strikes, wages, insurance, child-labor, control of prices.
35. **Geography and Explorations.** Natural scenery, fossils, explorations, etc.
36. **Government Periodicals,** for which subscriptions are taken.
37. **Tariff.** Speeches and laws on war revenue, income tax, etc.
38. **Animal Industry.** Domestic animals, poultry and dairy industries.
39. **Birds and Wild Animals.** North American Fauna, game, mice, squirrels, etc.
40. **Chemistry.** Technical investigations of food adulterations, preservatives, and alcohol.
41. **Insects.** Includes bees, and insects harmful to agriculture and to health.
42. **Irrigation, Drainage, Water-power.** Pumps, wells, erosion.
43. **Forestry.** Tree planting, management of national forests, lumber industry.
44. **Plants.** Culture of fruits, vegetables, cereals, grasses, herbs.
45. **Roads.** Construction, improvement, and maintenance.
46. **Soils and Fertilizers.** Soil surveys, fertilizers, nitrates, potash, phosphates.
48. **Weather, Astronomy, and Meteorology.** Climate, earthquakes, floods, Naval Observatory, and Nautical Almanac Office Publications.
49. **Proceedings of Congress.** Bound vols. of Congressional Record, Globe, etc.
50. **American History and Biography.** The Revolution, Civil War, etc.
51. **Health.** Disease, drugs, sanitation, water pollution, care of infants.
53. **Maps.** Government maps, and directions for obtaining them.
54. **Political Science.** Prohibition, District of Columbia, woman suffrage, elections.
55. **National Museum and National Academy of Sciences.**
58. **Mines.** Mineral resources, fuel-testing, coal, gas, gasoline, explosives.
59. **Interstate Commerce Commission Publications.**
60. **Alaska.** Gold, coal, and other mineral resources, railroads, explorations, etc.
61. **Panama Canal.** Construction, tolls, treaties, and material on Canal Zone.
62. **Commerce and Manufactures.** Foreign trade, patents, trusts, etc.
63. **Navy.** Marine Corps, Coast Guard, armor-plate, battleships, drill books.
64. **Standards of Weight and Measure.** Electricity, radiotelegraphy, etc.
65. **Foreign Relations.** Diplomacy, international law, Mexico, European war.
67. **Immigration.** Alien enlistment, Chinese, Japanese, Negroes, citizenship, naturalization, and illiteracy.
68. **Farm Management.** Agricultural statistics, farm accounts, credits, marketing, and conveniences for farm homes.
69. **Pacific States:** California, Oregon, Washington. All material relating to these States.
70. **Census.** Statistics, population, manufactures, agriculture, mines and mining, and mortality statistics.
71. **Children's Bureau,** and other publications relating to children.

How to Remit: Government Instructions

"Rules require that remittances must be made in advance of shipment. Make all remittances payable to the Superintendent of Documents, Government Printing Office, Washington, D. C. Remit in currency or by postal money order. Do not send postage stamps, mutilated coin, or foreign money. The prices quoted are for delivery within the United States, which includes Alaska, Guam, Hawaii, Philippine Islands, Porto Rico, Samoa, or to Canada, Cuba, Mexico, and Shanghai. For delivery to all foreign countries add postage amounting to one-third the total cost. Foreign orders should be accompanied by international money order or New York draft.

Publications may be sold without limit, as to the number of copies, to any one applicant who agrees *not to resell or distribute them at a profit.*"

Miscellaneous Publications Which Should Be Known

From the almost limitless number of United States Public Documents, at least those mentioned below should be known for purposes of general reference. Read the description of each one carefully.

Congressional Directory

The *Congressional Directory* gives the members of Congress, foreign consuls, and other officials; duties of the departments of the government; other information connected with the government.

The contents at the front is arranged alphabetically, to serve as an index.

Congressional Record

The *Congressional Record* is a daily record of the speeches and proceedings of Congress.

It is indexed every two weeks; the index is fully cumulated every Congress.

Statistical Abstract

The *Statistical Abstract* is a valuable one volume yearly *abstract of many volumes* of statistics, compiled from the different departments. Details from this abstract are illustrated by specimen entries on following pages.

Census Reports: Census Abstract: Statistical Atlas

A full census of the United States is taken every ten years; several years, are required to complete it. For general reference, important details are *condensed* from the many large volumes of the full census, in two ways:

By tables, in the *Census Abstract*;

By color and chart scheme in the *Statistical Atlas*.

Selected Publications Indexed in Magazine Indexes

The publications mentioned below are of such value that The H. W. Wilson Company index them in their different guides as regularly as they do magazines. Read the lists carefully, as they indicate the publications which are the most practical for general needs.

In the Readers' Guide are indexed:

Farmers' Bulletins; Agricultural Year-book; Bureau of Education Bulletins; Bureau of Labor Bulletins.

In Industrial Arts are indexed:

Department of Agriculture Bulletins;

Bureau of Foreign and Domestic Commerce, Special Agents Series;

Bureau of Mines;—Bulletins, Miners' Circulars, Technical Papers;

Bureau of Standards;—Bulletins, Circulars, Technical Papers;

Special Consular Reports.

The Agricultural Index Includes:

Bulletins of the state and federal departments, giving the latest scientific researches and discoveries in agricultural lines.

The *American Library Association Booklist* frequently selects the current United States Government Documents which are apt to be serviceable in a general library. This list appears after the list of selected current books.

National Manuals

Many nations publish a government year-book or manual giving the names of those employed in army, navy, post offices, and other positions, together with miscellaneous information. In Great Britain, the publication is called the *Blue Book*; in France, the *Yellow Book*; in Italy, the *Green Book*; in United States, the *Official Register (Blue Book)*.

Study of Specimen Entries from a Statistical Abstract

The specimen pages following are taken from a *Statistical Abstract*, to illustrate the kind of information included in that publication. A *Statistical Abstract*, which is a volume of nearly one thousand pages of selected statistics, is issued each year. It should be placed in every library. It can be purchased, in paper binding, from the Superintendent of Documents, Washington, D. C., for seventy-five cents.

Read the heading of each column for the table, *Education*, page 11.

Give the total expenditures for schools in the United States for the years 1871 and 1910.

Total number of teachers in 1900.

Number enrolled in the public schools in 1875.

Consult the table headed *Annual Average Export Prices of Leading Articles of Domestic Production*, page 12, and find the following:

Price of butter per pound at ports in 1893; 1900. (7th from the last column.)

Price of anthracite coal per ton in 1893; 1896.

Price of bacon per pound in 1907; 1910.

Consult the table headed *Cities Having 50,000 Inhabitants or Over in 1917*, pages 13-15, and find the following:

Cities which had 50,000 inhabitants or over in 1850.

Between what decades the population of the following cities increased from under 50,000 inhabitants to over: Washington; Omaha; Tampa; Duluth; Denver.

Consult the table headed *Summary of Strikes in Coal Mines*, page 15, and find the following:

Number of men on strike in *bituminous* mines in 1910 and in 1916.

Consult the table headed *Fire Losses in the United States*, page 15, and find the following:

Amount of loss by fire in 1875; in 1900; in 1910.

Compare the last mentioned table with the one headed *Education*, on page 11, and tell which is greater, the amount spent for education or the loss by fires, for the years 1879; 1906.

Read page 16.

EDUCATION.

No. 71.—SUMMARY OF SCHOOL POPULATION,¹ 1871 TO 1916: ENROLLMENT, ATTENDANCE, SUPERINTENDENTS AND TEACHERS EMPLOYED IN, AND EXPENDITURES FOR, PUBLIC SCHOOLS.²

[Source: Bureau of Education, Department of the Interior.]

School year.	Population, 5 to 18 years of age. ³	Pupils.		Teachers.				Total expenditure.
		Number enrolled in public schools.	Average daily attendance.	Male.	Female.	Total.	Salaries of superintendents and teachers.	
							<i>Dollars.</i>	<i>Dollars.</i>
1871.....	12,305,600	7,561,582	4,545,317	90,293	129,932	220,225	42,580,853	69,107,612
1872.....	12,565,600	7,815,306	4,658,844	94,992	134,929	229,921	45,935,681	74,234,476
1873.....	12,833,700	8,003,614	4,745,459	97,790	139,723	237,513	47,932,050	76,238,464
1874.....	13,112,900	8,444,251	5,050,840	103,465	144,982	248,447	50,785,656	80,054,286
1875.....	13,405,200	8,785,678	5,248,114	108,791	149,074	257,865	54,722,250	83,504,007
1876.....	13,708,000	8,869,115	5,291,376	109,780	149,838	259,618	55,358,166	83,082,578
1877.....	14,025,800	8,965,006	5,426,595	114,312	152,738	267,050	54,973,776	79,439,826
1878.....	14,356,000	9,438,883	5,783,065	119,404	157,743	277,147	56,155,133	79,083,260
1879.....	14,702,800	9,504,458	5,876,077	121,490	158,840	280,330	54,639,731	76,192,375
1880.....	15,065,767	9,867,505	6,144,143	122,795	163,798	286,593	55,942,972	78,094,687
1881.....	15,379,290	10,000,896	6,145,932	122,511	171,349	293,860	58,012,463	83,642,964
1882.....	15,704,660	10,211,578	6,331,242	118,892	180,187	299,079	60,594,933	88,990,466
1883.....	16,044,410	10,651,828	6,652,392	116,388	188,001	304,389	64,798,859	96,750,003
1884.....	16,401,280	10,982,364	7,055,696	118,905	195,110	314,015	68,384,275	103,212,837
1885.....	16,773,190	11,398,024	7,297,529	121,762	204,154	325,916	72,878,993	110,328,375
1886.....	17,122,060	11,664,460	7,526,351	123,792	207,601	331,393	76,270,434	113,322,545
1887.....	17,482,020	11,884,944	7,681,806	127,093	212,367	339,460	78,639,964	115,783,890
1888.....	17,827,310	12,182,600	7,906,986	126,240	220,894	347,134	83,022,562	124,244,911
1889.....	18,168,580	12,392,260	8,005,969	124,467	232,110	356,577	87,568,306	132,539,783
1890.....	18,543,201	12,722,581	8,153,635	125,525	238,397	363,922	91,836,484	140,505,715
1891.....	18,897,076	13,050,132	8,408,323	123,360	245,028	368,388	96,303,069	147,494,809
1892.....	19,194,233	13,255,921	8,560,603	121,573	252,653	374,226	100,298,256	155,817,012
1893.....	19,620,964	13,483,340	8,837,199	122,472	260,278	382,750	104,560,339	164,171,057
1894.....	20,137,521	13,995,357	9,263,350	125,402	263,547	388,949	109,202,405	172,502,843
1895.....	20,440,479	14,243,765	9,548,722	129,706	268,336	398,042	113,872,388	175,809,279
1896.....	20,868,807	14,498,956	9,781,475	130,373	269,923	400,296	117,139,841	183,498,965
1897.....	21,114,812	14,823,059	10,052,554	131,221	273,737	404,958	119,310,503	187,682,269
1898.....	21,572,114	15,103,874	10,356,458	132,257	278,556	410,813	124,192,270	191,292,911
1899.....	21,917,865	15,176,219	10,328,396	131,207	283,065	414,272	129,345,873	200,154,597
1900.....	21,404,322	15,503,110	10,632,772	126,588	296,474	423,062	137,687,746	214,964,618
1901.....	21,982,797	15,688,602	10,714,613	126,491	305,292	431,783	143,286,204	227,465,664
1902.....	22,278,693	15,917,385	11,064,164	120,883	320,936	441,819	151,443,681	238,262,299
1903.....	22,655,001	15,999,717	11,053,158	116,720	333,144	449,864	157,635,732	252,804,081
1904.....	23,028,748	16,256,038	11,318,256	113,744	341,498	455,242	167,824,753	273,216,227
1905.....	23,410,800	16,468,300	11,481,531	110,532	349,737	460,269	177,462,981	291,616,660
1906.....	23,792,723	16,641,970	11,712,300	109,179	356,884	466,063	186,483,464	307,765,659
1907.....	24,262,936	16,890,818	11,925,672	104,414	376,902	481,316	202,047,814	336,898,333
1908.....	24,613,763	17,061,962	12,154,172	104,495	390,968	495,463	219,780,123	371,344,410
1909.....	24,239,820	17,506,175	12,684,837	108,300	398,153	506,453	237,013,913	401,397,747
1910.....	24,360,888	17,813,852	12,827,307	110,481	412,729	523,210	253,915,470	426,250,434
1911.....	24,745,562	18,035,118	12,871,980	110,328	423,278	533,606	266,678,471	446,726,929
1912.....	25,167,445	18,182,937	13,302,303	114,559	432,730	547,289	284,945,162	482,886,793
1913.....	25,587,331	18,609,040	13,613,656	113,213	452,270	565,483	304,431,681	521,546,375
1914.....	26,002,153	19,153,786	14,216,459	114,662	465,396	580,058	323,610,915	555,077,146
1915.....	26,425,100	19,693,007	14,964,886	118,435	485,566	604,001	344,668,690	605,460,785
1916.....	26,846,976	20,351,687	15,358,927	123,038	499,333	622,371	364,789,265	640,717,053

¹ Includes public, graded, and high schools, but excludes private schools.

² Alaska and Hawaii not included. Indian Territory not included prior to 1901.

³ Estimated, except United States census years.

⁴ Includes salaries of teachers and principals only.

No. 311.—ANNUAL AVERAGE EXPORT PRICES OF LEADING ARTICLES OF DOMESTIC PRODUCTION EXPORTED FROM THE UNITED STATES: 1893 TO 1917.

[The values of the goods are required by law to represent their market value at the port and time of exportation. "Ton" signifies long ton of 2,240 pounds.]

Year ended June 30—	Breadstuffs.			Cattle, each.		Coal.		Cotton, and manufactures of.				Leather, and mfrs. of.		Lumber: Boards, deals, and planks, per M feet.		Meat and dairy products.						Oils.		Starch, per pound.		Sugar, refined, per pound.		Tobacco, leaf, per pound.	
	Dolls.	Dolls.	Dolls.	Dolls.	Dolls.	Dolls.	Dolls.	Cts.	Cts.	Cts.	Dolls.	Cts.	Dolls.	Dolls.	Dolls.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
								Unmanufactured—Up-land, per pound.	Colored, per yard.	Uncolored, per yard.	Wire, per pound.	Cut nails, per pound.	Wire nails, per pound.	Locomotives, steam, each.	Leather, sole, per pound.	Boots and shoes, per pair.													
1893...	0.53	0.80	4.54	90.68	4.52	2.90	11.1	8.5	6.5	6.2	23.2	2.8	2.1	9,204	15.0	1.20	15.32	8.1	9.5	7.8	5.4	19.0	9.4	4.9	41.5	3.2	4.7	9.0	9.0
1894...	.46	.67	4.11	93.45	4.63	2.41	19.9	7.8	6.3	6.1	16.9	2.4	2.0	7,212	15.1	1.20	16.27	9.1	9.0	8.0	5.7	17.6	9.7	4.2	40.2	3.2	4.4	8.5	8.5
1895...	.53	.58	3.38	92.98	4.24	2.18	9.4	5.8	5.9	5.6	16.8	2.1	1.7	9,443	15.3	1.23	15.05	9.6	7.8	7.1	5.7	16.4	9.1	4.9	32.2	3.2	4.6	8.7	8.7
1896...	.38	.65	3.56	93.29	4.10	2.19	6	8.1	5.8	5.7	14.7	2.1	2.1	9,626	17.9	1.39	14.56	8.7	6.6	5.7	5.6	15.2	8.4	6.8	28.2	2.7	4.9	8.5	8.5
1897...	.31	.75	3.84	93.45	4.46	2.24	11.0	7.9	5.7	5.4	13.8	2.1	2.0	9,544	16.9	1.39	14.91	8.3	5.1	4.9	5.2	14.3	9.1	6.3	25.4	2.1	4.7	8.0	8.0
1898...	.36	.98	4.51	93.50	4.45	2.15	11.1	5.4	5.2	4.8	16.3	1.9	1.9	8,299	17.5	1.39	15.28	7.5	5.6	5.6	5.5	15.0	8.6	5.7	25.2	1.9	5.0	8.7	8.7
1899...	.39	.75	4.04	91.57	4.12	2.06	13.5	5.4	4.8	4.5	19.1	1.8	1.8	9,147	16.8	1.40	15.49	7.7	6.0	5.8	5.3	16.3	8.6	5.6	23.9	2.0	4.4	9.3	9.3
1900...	.41	.72	3.62	92.46	4.26	2.26	16.7	7.7	5.5	5.0	16.6	2.5	2.6	10,652	18.9	1.42	16.94	7.9	6.3	6.2	5.7	17.2	10.2	7.8	30.1	2.1	4.5	8.7	8.7
1901...	.46	.73	3.72	93.82	4.41	2.41	16.3	9.4	5.7	5.6	18.3	2.5	2.2	9,548	18.7	1.58	18.25	8.4	7.6	7.2	5.7	17.3	9.9	6.3	33.5	2.0	5.0	9.0	9.0
1902...	.68	.73	3.70	95.15	4.53	2.53	13.6	8.3	5.0	5.2	19.5	2.4	2.1	8,726	18.0	1.56	18.01	9.0	9.4	8.7	6.2	18.0	10.1	6.3	39.3	2.3	4.1	9.2	9.2
1903...	.54	.77	3.74	95.97	4.85	2.78	12.6	8.9	5.0	5.2	21.5	2.3	2.2	11,141	18.5	1.59	19.67	9.9	10.4	10.5	7.2	18.0	11.9	6.7	39.9	3.0	3.4	9.8	9.8
1904...	.54	.81	4.05	93.34	4.93	2.75	13.0	12.0	6.0	5.9	22.3	2.3	2.1	10,439	18.9	1.56	20.05	11.4	8.3	8.5	5.7	16.5	10.5	7.8	36.9	2.3	3.5	9.6	9.6
1905...	.53	.89	4.55	93.80	4.99	2.63	13.8	8.8	5.7	6.0	21.9	2.2	2.0	7,985	21.4	1.52	19.08	10.51	7.7	7.9	5.5	16.4	10.7	6.8	29.4	2.3	3.8	9.5	9.5
1906...	.53	.82	4.25	93.17	4.93	2.58	16.6	11.0	5.9	6.1	21.0	2.2	2.0	9,630	20.2	1.61	21.34	10.1	8.1	8.2	5.8	18.0	11.7	6.3	31.2	2.3	4.1	9.0	9.0
1907...	.53	.79	3.99	81.73	4.90	2.56	21.4	10.6	6.2	6.7	22.1	2.3	2.1	9,356	22.0	1.83	24.55	10.07	9.2	9.1	6.0	19.4	11.6	6.3	40.8	2.2	3.9	10.0	10.0
1908...	.65	.99	4.61	84.02	4.88	2.58	14.3	11.4	7.2	6.7	20.3	2.5	2.3	11,456	21.1	1.75	23.00	10.91	9.1	8.9	6.8	21.8	12.9	6.8	42.0	2.4	3.8	10.6	10.6
1909...	.70	1.02	4.86	86.96	4.97	2.55	13.19	9.4	5.9	5.9	23.0	2.3	2.2	9,908	20.9	1.67	21.40	10.94	10.0	8.8	7.7	21.2	12.6	6.6	40.8	2.3	3.5	10.9	10.9
1910...	.69	1.02	5.27	87.50	4.94	2.49	13.08	13.99	6.18	6.7	23.7	2.4	2.1	7,757	21.7	1.71	21.83	10.83	11.9	11.1	7.5	25.0	15.5	6.2	6.6	2.5	4.3	10.8	10.8
1911...	.56	.93	4.88	87.70	4.99	2.48	12.46	14.48	6.88	7.16	20.9	2.3	1.9	9,504	21.5	1.71	21.54	12.1	11.0	10.8	8.7	21.7	12.4	5.6	7.6	2.0	4.1	11.1	11.1
1912...	.72	.94	4.63	84.07	5.11	2.54	13.52	10.20	6.14	6.88	22.0	2.2	1.7	9,450	22.0	1.77	22.14	13.3	9.8	9.5	7.4	24.1	14.2	5.7	6.0	2.3	4.6	11.5	11.5
1913...	.59	.97	4.67	47.63	5.30	2.52	16.30	11.99	6.55	7.16	21.5	2.1	1.9	10,358	24.0	1.80	23.94	12.1	11.2	10.6	9.6	24.3	17.0	6.3	6.6	2.4	3.8	11.9	11.9
1914...	.75	.95	4.61	35.22	5.27	2.49	14.86	12.81	6.72	7.12	23.1	2.1	1.9	9,640	25.6	1.77	24.30	13.1	11.3	10.8	9.8	23.8	17.1	6.4	7.2	2.4	3.6	12.1	12.1
1915...	.81	1.28	5.86	128.16	5.27	2.53	14.21	8.54	6.74	7.66	24.1	2.2	1.9	9,280	29.7	1.99	22.25	13.8	11.0	10.8	10.6	24.3	15.3	6.0	6.9	2.7	4.7	12.8	12.8
1916...	.81	1.24	5.63	111.72	5.25	2.43	22.44	12.33	7.70	9.28	23.2	2.9	2.3	15,852	34.8	2.32	23.76	13.9	11.2	10.6	10.6	26.6	16.7	6.4	8.5	2.7	4.9	12.1	12.1
1917...	1.12	1.99	7.80	70.93	5.56	2.94	28.64	18.11	9.40	8.48	30.4	3.9	3.4	12,651	43.6	2.08	26.00	17.6	17.3	14.8	11.6	32.6	23.1	5.4	12.5	3.2	.....	14.7	14.7

¹ After 1910 the figures represent beef cured in any manner.

² Unit of quantity pounds after 1909.

No. 30.—CITIES HAVING 50,000 OR MORE INHABITANTS IN 1917:
POPULATION AT EACH CENSUS, 1850 TO 1910, WITH ESTIMATES FOR JULY 1, 1917.

[Source: Reports of the Bureau of the Census, Department of Commerce.]

City.	1850	1860	1870	1880	1890	1900	1910	1917
Akron, Ohio.....	3,266	3,477	10,006	16,512	27,601	42,728	69,067	93,604
Albany, N. Y.....	50,763	62,367	69,422	90,758	94,923	94,151	100,253	106,632
Allentown, Pa.....	3,779	8,025	13,884	18,063	25,228	35,416	51,913	65,109
Altoona, Pa.....		3,591	10,610	19,710	30,337	38,973	52,127	59,712
Atlanta, Ga.....	2,572	9,554	21,789	37,409	65,533	89,872	154,839	196,144
Atlantic City, N. J.....			1,043	5,477	13,055	27,838	46,150	59,515
Augusta, Ga.....	⁽¹⁾	12,493	15,389	21,891	33,300	39,441	41,040	50,642
Baltimore, Md.....	169,054	212,418	267,354	332,313	434,439	508,957	558,485	594,637
Bayonne, N. J.....				9,372	19,033	32,722	55,545	72,204
Berkeley, Cal.....					5,101	13,214	40,434	60,427
Binghamton, N. Y.....		8,325	12,692	17,317	35,005	39,647	48,443	54,864
Birmingham, Ala.....				3,086	26,178	² 44,000	132,685	189,716
Boston, Mass.....	136,881	177,840	250,526	362,839	448,477	560,892	670,585	767,813
Bridgeport, Conn.....	³ 7,560	³ 13,299	18,969	27,643	48,866	70,996	102,054	124,724
Brookton, Mass.....	3,939	6,584	8,007	13,608	27,294	40,063	56,878	69,152
Buffalo, N. Y.....	42,261	81,129	117,714	155,134	255,664	352,387	423,715	475,781
Cambridge, Mass.....	15,215	26,060	39,634	52,669	70,028	91,886	104,839	114,293
Camden, N. J.....	9,479	14,358	20,045	41,659	58,313	75,935	94,538	108,117
Canton, Ohio.....	2,603	4,041	8,660	12,258	26,189	30,667	50,217	62,566
Charleston, S. C.....	42,985	40,522	48,956	49,984	54,955	55,807	58,833	61,041
Chattanooga, Tenn.....			6,093	12,892	29,100	30,154	44,604	61,575
Chicago, Ill.....	29,963	109,260	298,977	503,185	1,099,850	1,698,575	2,185,283	2,547,201
Cincinnati, Ohio.....	115,435	161,044	216,239	255,139	296,908	⁴ 331,866	363,591	414,248
Cleveland, Ohio.....	17,034	43,417	92,829	160,146	261,353	⁶ 384,111	560,663	692,259
Columbus, Ohio.....	17,882	18,554	31,274	51,647	88,150	125,560	181,511	220,135
Covington, Ky.....	9,408	16,471	24,505	29,720	37,371	⁶ 46,975	53,270	59,623
Dallas, Tex.....				10,358	38,067	⁷ 46,268	92,104	129,738
Dayton, Ohio.....	10,977	20,081	30,473	38,678	61,220	85,333	116,577	128,939
Denver, Colo.....			4,759	35,629	106,713	⁴ 140,472	213,381	268,439
Des Moines, Iowa.....		3,965	12,035	22,408	50,093	62,139	86,368	104,052
Detroit, Mich.....	21,019	45,619	79,577	116,340	205,876	² 290,277	465,766	619,648
Duluth, Minn.....		80	3,131	⁹ 838	33,115	52,969	78,466	97,077
East St. Louis, Ill.....			5,644	9,185	15,169	¹⁰ 30,710	58,547	77,312
Elizabeth, N. J.....		11,567	20,832	28,229	37,764	52,130	73,409	88,830
El Paso, Tex.....	⁽¹¹⁾	⁽¹¹⁾	⁽¹¹⁾	736	10,338	15,906	39,279	69,149
Erie, Pa.....	5,858	9,419	19,646	27,737	40,634	52,733	66,525	76,592
Evansville, Ind.....	3,235	11,484	21,830	29,280	50,756	59,007	69,647	76,981
Fall River, Mass.....	11,524	14,026	26,766	48,961	74,398	104,863	119,295	129,828
Flint, Mich.....	1,670	2,950	5,386	8,409	9,803	13,103	38,550	57,386
Fort Wayne, Ind.....	4,282	⁽¹¹⁾	17,718	26,880	35,393	45,115	63,933	73,014
Fort Worth, Tex.....				6,663	23,076	26,688	73,312	109,597
Grand Rapids, Mich.....	2,686	8,085	16,507	32,016	60,278	87,565	112,571	132,861
Harrisburg, Pa.....	7,834	13,405	23,104	30,762	39,385	50,167	64,186	73,276
Hartford, Conn.....	³ 17,966	³ 29,152	37,180	42,015	53,230	79,850	98,915	112,831
Hoboken, N. J.....		9,662	20,297	30,999	43,648	59,364	70,324	78,324
Holyoke, Mass.....	3,245	4,997	10,733	21,915	35,637	45,712	57,730	66,503
Houston, Tex.....	2,396	4,845	9,382	16,513	27,557	44,633	78,800	116,873
Indianapolis, Ind.....	8,091	18,611	48,244	75,056	105,436	¹² 170,963	233,650	283,622
Jacksonville, Fla.....	1,045	2,118	6,912	7,650	17,201	28,429	57,699	79,065
Jersey City, N. J.....	6,856	29,226	82,546	120,722	163,003	203,433	267,779	312,557
Johnstown, Pa.....	1,269	4,185	6,028	8,380	21,805	¹³ 36,744	55,482	70,473
Kalamazoo, Mich.....	2,507	6,070	9,181	11,937	17,853	24,404	39,437	50,408
Kansas City, Kans.....				3,200	38,316	¹⁴ 57,296	82,331	102,096
Kansas City, Mo.....		4,418	32,260	55,785	132,716	¹⁵ 164,745	248,381	305,816
Knoxville, Tenn.....	2,076	⁽¹¹⁾	8,682	9,693	22,535	32,637	36,346	59,112
Lancaster, Pa.....	12,369	17,603	20,233	25,769	32,011	41,459	47,227	51,437
Lawrence, Mass.....	8,282	17,639	28,921	39,151	44,654	62,559	85,892	102,923
Little Rock, Ark.....	2,167	3,727	12,380	13,138	25,874	¹⁶ 33,556	45,941	58,716
Los Angeles, Cal.....	1,610	4,385	5,728	11,183	50,395	¹⁷ 104,266	319,198	535,485
Louisville, Ky.....	43,194	68,033	100,753	123,758	161,129	¹⁸ 205,173	223,928	240,808

¹ Not returned separately in 1850; in 1852, according to a local census, Augusta had a population of 10,217.

² Includes population of Ensley city and Pratt City town, annexed in 1910.

³ Population of town; town and city not returned separately.

⁴ Includes adjacent territory, annexed in 1903 and 1909.

⁵ Includes South Brooklyn village annexed in 1905.

⁶ Includes Central Covington and Latonia towns, annexed in 1906 and 1907, respectively.

⁷ Includes Oak Cliff town, annexed in 1903.

⁸ Includes Delray village, annexed in 1906.

⁹ Excludes Duluth village (population 2,645) set apart by act of legislature Feb. 23, 1877, but which again became part of the city by the act of Mar. 2, 1887.

¹⁰ Includes Winstanley Park village, annexed in 1902.

¹¹ Not returned separately.

¹² Includes Irvington town, annexed in 1902.

¹³ Includes Roxbury Borough, annexed in 1901.

¹⁴ Includes Argentine city, annexed in 1910.

¹⁵ Includes that part of Kaw Township outside of Kansas City, annexed in 1909.

¹⁶ Includes ward 8, taken to form a part of Argenta City in 1904.

¹⁷ Includes San Pedro city, annexed in 1904.

¹⁸ Includes Crescent Hill town, annexed in 1900.

No. 30.—CITIES HAVING 50,000 OR MORE INHABITANTS IN 1917: POPULATION AT EACH CENSUS, 1850 TO 1910, WITH ESTIMATES FOR JULY 1, 1917—Continued.

City.	1850	1860	1870	1880	1890	1900	1910	1917
Lowell, Mass.....	33,333	36,827	40,928	59,475	77,696	94,969	106,294	114,366
Lynn, Mass.....	14,257	19,083	23,233	38,274	55,727	68,513	89,336	104,534
Malden, Mass.....	3,520	5,865	7,367	12,017	23,031	33,664	44,404	52,243
Manchester, N. H....	13,932	20,107	23,536	32,630	44,126	56,987	70,063	79,607
Memphis, Tenn.....	8,841	22,623	40,226	33,592	64,495	¹ 102,647	131,105	151,877
Milwaukee, Wis.....	20,061	45,246	71,440	115,587	204,468	285,315	373,857	445,003
Minneapolis, Minn....	.....	2,564	13,066	46,887	164,738	202,718	301,408	373,448
Mobile, Ala.....	20,515	29,258	32,034	29,132	31,076	² 42,008	51,521	59,201
Nashville, Tenn.....	10,165	16,988	25,865	43,350	76,168	80,865	110,364	118,136
Newark, N. J.....	38,894	71,941	105,059	136,508	181,830	³ 248,849	347,469	418,789
New Bedford, Mass....	16,443	22,300	21,320	26,845	40,733	62,442	96,652	121,622
New Britain, Conn....	.....	.....	.....	11,800	16,519	28,202	43,916	55,385
New Haven, Conn....	⁴ 20,345	⁴ 39,267	⁴ 50,840	⁴ 62,882	81,298	108,027	133,605	152,275
New Orleans, La.....	116,375	168,675	191,418	216,090	242,039	287,104	339,075	377,010
New York, N. Y. ⁵	696,115	1,174,779	1,478,103	1,911,698	2,507,414	3,437,202	4,766,833	5,737,492
Manhattan.....	515,547	813,669	942,292	1,164,673	1,441,216	1,850,093	2,331,542	2,682,978
Bronx.....	8,032	23,593	37,393	51,980	88,908	200,507	430,980	509,215
Brooklyn.....	138,882	279,122	419,921	599,495	838,547	1,166,582	1,634,351	1,976,103
Queens.....	18,593	32,903	45,468	56,559	87,050	152,999	284,041	379,396
Richmond.....	15,061	25,492	33,029	38,991	51,693	67,021	85,969	99,800
Norfolk, Va.....	14,326	14,620	19,229	21,966	34,871	⁶ 51,612	67,452	91,148
Oakland, Cal.....	.....	1,543	10,500	34,555	48,682	66,960	150,174	206,405
Oklahoma City, Okla.	.....	.....	.....	.....	4,151	10,037	64,205	97,583
Omaha, Nebr.....	.....	1,883	16,083	30,518	140,452	102,555	124,096	177,777
Passaic, N. J.....	.....	.....	.....	6,532	13,028	27,777	54,773	74,478
Paterson, N. J.....	.....	19,586	33,579	51,031	78,347	105,171	125,600	140,512
Pawtucket, R. I.....	3,753	4,200	6,619	19,030	27,633	39,231	51,622	60,666
Peoria, Ill.....	5,095	14,045	22,849	29,259	41,024	⁷ 58,458	66,950	72,184
Philadelphia, Pa.....	121,376	565,529	674,022	847,170	1,046,964	1,293,697	1,549,008	1,735,514
Pittsburgh, Pa. ⁸	67,863	77,923	139,256	235,071	343,904	462,801	533,905	586,196
Portland, Me.....	20,815	26,341	31,413	33,810	36,425	50,145	58,571	64,720
Portland, Oreg.....	.....	2,874	8,293	17,577	46,385	90,426	207,214	308,399
Providence, R. I.....	41,513	50,666	68,904	104,857	132,146	175,597	224,326	259,895
Pueblo, Colo.....	.....	.....	.....	3,217	24,558	28,157	44,395	56,084
Reading, Pa.....	15,743	23,162	33,930	43,278	58,661	78,961	96,071	111,607
Richmond, Va.....	27,570	37,910	51,038	63,600	81,388	⁹ 94,765	127,628	158,702
Rochester, N. Y.....	36,403	48,204	62,386	89,366	133,896	162,608	218,149	264,714
Rockford, Ill.....	.....	6,979	11,049	13,129	23,584	31,051	45,401	56,739
Sacramento, Cal.....	6,820	13,785	16,283	21,420	26,386	29,282	44,696	68,984
Saginaw, Mich.....	.....	1,699	7,460	10,525	46,322	42,345	50,510	56,469
St. Joseph, Mo.....	.....	8,932	19,565	32,431	52,324	102,979	77,403	86,498
St. Louis, Mo.....	77,860	160,773	310,864	350,518	451,770	575,238	687,029	763,630
St. Paul, Minn.....	1,112	10,401	20,030	41,473	133,156	163,065	214,744	252,465
Salt Lake City, Utah..	.....	8,236	12,854	20,768	44,843	53,531	92,777	121,623
San Antonio, Tex....	3,488	8,235	12,256	20,550	37,673	53,321	96,614	123,215
San Diego, Cal.....	¹⁰	731	2,300	2,637	16,159	17,700	39,578	56,412
San Francisco, Cal....	¹¹ 34,776	56,802	149,473	233,959	298,997	342,782	416,912	471,023
Savannah, Ga.....	15,312	22,292	28,235	30,709	43,189	54,244	65,064	69,250
Sehenectady, N. Y....	8,921	9,579	11,026	13,655	19,902	31,682	72,826	103,774
Scranton, Pa.....	.....	9,223	35,092	45,850	75,215	102,026	129,867	149,541
Seattle, Wash.....	.....	.....	1,107	3,533	42,837	¹² 86,146	237,194	366,445
Sioux City, Iowa.....	.....	.....	3,401	7,366	37,806	33,111	47,828	58,568
Somerville, Mass.....	3,540	8,025	14,685	24,933	40,152	61,643	77,236	88,618
South Bend, Ind.....	1,652	3,832	7,206	13,280	21,819	35,999	53,684	70,967
Spokane, Wash.....	.....	.....	.....	.....	19,922	36,848	104,402	157,656
Springfield, Ill.....	4,533	9,320	17,364	19,743	24,963	¹³ 35,328	51,678	62,623
Springfield, Mass....	11,766	15,199	26,703	33,340	44,179	62,059	88,926	108,663
Springfield, Ohio....	5,108	7,002	12,652	20,730	31,895	38,253	46,921	52,296
Syracuse, N. Y.....	22,271	28,119	43,051	51,792	88,143	108,374	137,249	158,559
Tacoma, Wash.....	.....	.....	.....	.....	36,006	37,714	83,743	117,446
Tampa, Fla.....	¹⁴ 974	¹⁰	¹⁴ 796	720	5,532	¹⁵ 16,387	37,782	56,251

¹ Includes Lenox town, annexed in 1909.² Includes precinct 27, Garrity's, and other territory annexed in 1908.³ Includes Vails Borough, annexed in 1905.⁴ Population of town; town and city not returned separately.⁵ Population of New York and its boroughs as now constituted.⁶ Includes Berkley town, annexed in 1906.⁷ Includes North Peoria village, annexed in 1900.⁸ Includes population of Allegheny: 1850, 24,262; 1860, 28,702; 1870, 53,180; 1880, 78,632; 1890, 105,287; 1900, 129,896; and other adjacent territory annexed in 1905, 1906, 1907, and 1908.⁹ Includes population of Manchester city, annexed in 1910.¹⁰ Not separately returned.¹¹ Population as reported by State census of 1852; the returns for 1850 for San Francisco were destroyed by fire.¹² Includes Ballard city, Columbia town, and West Seattle precinct, annexed in 1907.¹³ Includes Ridgley village, annexed in 1907.¹⁴ Tampa town.¹⁵ Includes a part of precinct 6, comprising a portion of Brook town, annexed in 1907.

No. 30.—CITIES HAVING 50,000 OR MORE INHABITANTS IN 1917: POPULATION AT EACH CENSUS, 1850 TO 1910, WITH ESTIMATES FOR JULY 1, 1917—Continued.

City.	1850	1860	1870	1880	1890	1900	1910	1917
Terre Haute, Ind.....	4,051	8,594	16,103	26,042	30,217	36,673	58,157	67,361
Toledo, Ohio.....	3,829	13,768	31,584	50,137	81,434	131,822	168,497	202,010
Trenton, N. J.....	6,461	17,228	22,874	29,910	57,458	73,307	96,815	113,974
Troy, N. Y.....	28,785	39,235	46,465	56,747	60,956	¹ 75,057	76,813	78,094
Utica, N. Y.....	17,565	22,529	28,804	33,914	44,007	56,383	74,419	89,272
Washington, D. C. ² ...	40,001	61,122	109,199	177,624	230,392	278,718	331,069	369,282
Waterbury, Conn.....			10,826	17,806	28,646	51,139	73,141	89,201
Wichita, Kans.....				4,911	23,853	24,671	52,450	73,597
Wilkes-Barre, Pa.....	2,723	4,253	10,174	23,339	37,718	51,721	67,105	78,334
Wilmington, Del.....	13,979	21,258	30,841	42,478	61,431	76,508	87,411	95,369
Worcester, Mass.....	17,049	24,960	41,105	58,291	84,655	118,421	145,986	166,106
Yonkers, N. Y.....				18,892	32,033	47,931	79,803	103,066
York, Pa.....	6,863	8,605	11,003	13,940	20,793	33,708	44,750	52,770
Youngstown, Ohio....		2,759	8,075	15,435	33,220	44,885	79,066	112,282

¹ Includes territory annexed in 1901.

² Population as returned from 1880 to 1910 for the District of Columbia, with which the city is now coextensive.

No. 172.—SUMMARY OF STRIKES IN COAL MINES: NUMBER OF MEN ON STRIKE, DAYS LOST, AND AVERAGE DAYS LOST PER MAN, CALENDAR YEARS 1905 TO 1916.

[Source: Reports of the Geological Survey, Department of the Interior.]

Year.	Men on strike.	Working days lost.	Average days lost per man.	Year.	Men on strike.	Working days lost.	Average days lost per man.
1905.....	37,542	796,735	21.0	1911.....	41,413	983,737	24.0
1906.....	372,343	19,201,348	51.5	1912.....	311,056	12,527,305	40.0
1907 ¹	32,540	462,392	14.0	1913.....	135,395	3,049,412	22.5
1908 ¹	145,145	5,449,938	38.0	1914.....	161,720	11,013,667	68.0
1909 ¹	24,763	723,634	29.0	1915.....	67,190	2,467,421	37.0
1910.....	218,493	19,250,524	88.0	1916.....	170,633	3,344,586	19.5

Bituminous mines only.

No. 358.—FIRE LOSSES IN THE UNITED STATES: ESTIMATED VALUE, CALENDAR YEARS 1875 TO 1916.

[Source: Annual reports of the National Board of Fire Underwriters.]

Year.	Loss.	Year.	Loss.	Year.	Loss.
	<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
1875.....	78,102,285	1889.....	123,046,833	1903.....	145,302,155
1876.....	64,630,600	1890.....	108,993,792	1904.....	229,198,050
1877.....	68,265,800	1891.....	143,764,967	1905.....	165,221,650
1878.....	64,315,900	1892.....	151,516,098	1906.....	518,611,800
1879.....	77,703,700	1893.....	167,544,370	1907.....	215,084,709
1880.....	74,643,400	1894.....	140,006,484	1908.....	217,885,850
1881.....	81,280,900	1895.....	142,110,233	1909.....	188,705,150
1882.....	84,505,024	1896.....	118,737,420	1910.....	214,003,300
1883.....	100,149,228	1897.....	116,354,575	1911.....	217,004,575
1884.....	110,008,611	1898.....	130,593,905	1912.....	206,438,900
1885.....	102,818,796	1899.....	153,597,830	1913.....	203,763,550
1886.....	104,924,750	1900.....	160,929,805	1914.....	221,439,350
1887.....	120,283,055	1901.....	165,817,810	1915.....	172,033,200
1888.....	110,885,665	1902.....	161,078,040	1916.....	214,530,995

Document Catalogues

Since the year 1895, the Federal government has planned to prepare a catalogue of publications for each succeeding congress, issuing the catalogues every second year, and arranging the material in one alphabetical order under author and subject. Such a catalogue is necessarily several years behind date, as its preparation requires much time and detailed work. Each volume thus far issued includes about two thousand large pages of fine print. A specimen entry is given below to illustrate the general nature of these catalogues.

Specimen Entry Under Mosquitoes, in Volume 10 of the Document Catalogue

Mosquitoes.

Currie, D. H. Mosquitoes in relation to transmission of leprosy (with bibliography). (In Public Health and Marine Hospital Service. Public health bulletin 39. Sept., 1910, p. 3-19.)

What is the title of the article? What is the bulletin number? What is the date? How many pages does the article contain? Articles are also indexed under author; under what name, therefore, would this, and any other articles for this catalogue by this author, appear? "With bibliography" means that it contains a list of references.

The next article under "mosquitoes" gives as one of the references the line in italics below—(*S. Doc.*), refers to Senate document number what?

S. doc. 822, p. 239-250.
61st Cong., 3rd sess., in v. 61; 5919.

On what page of this document does the article begin? It covers how many pages? It was published in what session of what Congress? In what volume of the publications of this Congress is the article found? 5919 is the large *serial* number on the back of the volume, regardless of the Congress.

Read the following entry under *beans*:

Beans.

Dubois, W. L. Analyses of canned peas and beans, showing composition of different grades. Mar. 28, 1910. 9 p. (Chemistry Bureau. Circular 54.)

Under what Bureau was it issued? What is the circular number? What is the date? How many pages in the article? What subject is of as much importance in the article as "beans"? It would, therefore, be entered again under what other word? Under what name will it be entered as author?

Questions for Public Documents

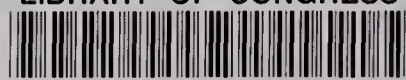
NOTE:—Numbers in margin at right of questions below, give values on scale of 100%.

- 1—What publications should be consulted for:
- a. Leading city officials (Name city publication).
 - b. Leading state officials (Name state publication).
 - c. Leading United States officials (Name United States publication).....5 each = 15
- 2—The report of what city department should be consulted to find the number of miles of pipe needed to carry the city water?..... = 2
- 3—The reports of what county and state commissions should be consulted to learn of the condition and construction of local roads and bridges?..... = 3
- 4—What is the name of the company which includes with their magazine indexes a few of the most important United States Government publications?..... = 10
- 5—Name at least two public boards or departments, each of which has a city, a county, a state, and a federal organization..... = 10
- 6—a. From what office in Washington, D. C., can one secure small classified catalogues of many of the United States government publications?
- b. What are these catalogues called?.....5 each = 10
- 7—What United States government publication gives a complete daily record of the sessions of Congress?..... = 5
- 8—What United States government publication issues every year condensed tables of important statistics pertaining to a great variety of subjects?..... = 5
- 9—All reports from all states are listed monthly:
- a. By what library?
 - b. Under what title?
 - c. How frequently are these reports indexed by author and subject?.....5 each = 15
- 10—What is the largest publishing house in the world?..... = 5
- 11—Name at least five of the main departments of the United States government..... = 5
- 12—Name five departments of city or town government,..... = 5
- 13—a. How frequently is a complete census of the United States taken?
- b. These reports, which constitute ten or twelve very large volumes, are condensed into one large volume of *tables* under what name?.....5 each = 10

**Plan for Checking Work
When Training in the use of Reference Material
is organized as a
Required Feature of the Regular English Course**

Schools which use these pamphlets as a required feature of their English courses will find it convenient to have a plan for marking the lesson. For this purpose a number appears after each question to indicate its value on the scale of 100%. Because this work requires but a few days each term, students are in danger of considering it unimportant unless it is carefully guarded. A reference question in examinations emphasizes the work. If a certificate for passing in an English course is not granted unless the work in the library pamphlet for that course has been completed, the fact will be established in the student's mind that the school considers training in the use of reference books to be as necessary as is training in other educational lines.

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